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ABSTRACT

This document records the oral and written testimony of witnesses at a Congressional hearing about the growing gap between the skills of workers in the United States and the requirements of the workplace and what private industry and government can do about the situation. Witnesses included Senators, Representatives, officials from the Department of Labor, educators, and representatives of business and industry associations. Testimony stated that many workers are not being educated and trained to meet the demands of the jobs that need to be filled. From basic entry-level positions to technicians, engineers, and scientists, workers who can do the job are becoming increasingly hard to find. This skills crisis is becoming a menace to the nation's economic future, according to testimony. A proposal by the Labor Department to improve the situation called for norms for work readiness, credentialing, school-to-work transition programs, and work-based training. Testimony also noted the need for inclusion of minority groups in training to help them participate in the work force more fully. Frustration was expressed with the slow pace at which programs are being initiated to solve this crisis. (KC)

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S. HRG. 101-563

CRISIS IN THE WORKPLACE: THE MISMATCH OF JOBS AND SKILLS

ED326647

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

OCTOBER 31, 1989

Printed for the use of the Joint Economic Committee

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CONTENTS

WITNESSES AND STATEMENTS

TUESDAY, OCTOBER 31, 1989

	Page
Gore, Hon. Albert, Jr., member of the Joint Economic Committee, presiding: Opening statement	1
Scheuer, Hon. James H., member of the Joint Economic Committee: Opening statement	2
Jones, Roberts T., Assistant Secretary of Labor for Employment and Training, U.S. Department of Labor	3
Martinez, Hon. Matthew G., a U.S. Representative in Congress from the 30th Congressional District of the State of California	18
Carnevale, Anthony P., executive vice president and chief economist, American Society for Training and Development	32
Hirschhorn, Larry, senior research manager, Wharton Center for Applied Research	43
Noyelle, Thierry, associate director, Conservation of Human Resources, Columbia University	59
Foster, Badi G., president, Aetna Institute for Corporate Education, Aetna Life & Casualty Co	78
Kolberg, William H., president, National Alliance of Business	118
Knight, Robert, president, National Association of Private Industry Councils [NAPIC]	138
Linefsky, Rae, senior vice president, Federation Employment & Guidance Service, and chairperson, National Youth Employment Coalition	151
Peagler, Owen, chairman, board of directors, 70001 Training & Employment Institute	165

SUBMISSIONS FOR THE RECORD

TUESDAY, OCTOBER 31, 1989

Carnevale, Anthony P.: Article entitled "The Learning Enterprise"	35
Foster, Badi G.: Prepared statement, together with an addendum	82
Hirschhorn, Larry: Report entitled "Training and Technology in Context: A Study of Four Companies"	46
Jones, Roberts T.:	
Prepared statement	7
Response to Senator Gore's request for a list of things which should be done regarding education	31
Knight, Robert: Prepared statement	140
Kolberg, William H.:	
Prepared statement	122
Responses to written questions	192
Linefsky, Rae: Prepared statement, together with an attachment	155
Noyelle, Thierry: Prepared statement	62
Peagler, Owen:	
Prepared statement, together with an executive summary	167
Responses to written questions	198

CRISIS IN THE WORKPLACE: THE MISMATCH OF JOBS AND SKILLS

TUESDAY, OCTOBER 31, 1989

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 9:15 a.m., in room SD-628, Dirksen Senate Office Building, Hon. Albert Gore, Jr. (member of the committee), presiding.

Present: Senator Gore; and Representatives Obey and Scheuer.

Also present: William Buechner, professional staff member.

OPENING STATEMENT OF SENATOR GORE, PRESIDING

Senator GORE. The hearing will come to order.

I want to welcome all of you this morning to the Joint Economic Committee's hearing on Crisis in the Workplace: The Mismatch of Jobs and Skills.

Congressman Lee Hamilton, the chairman of the Joint Economic Committee, has graciously afforded us the opportunity this morning to examine the growing gap between the skills of American workers and the requirements of the workplace and also to explore avenues that both the public and private sectors can take to prepare our work force better for the jobs of today and tomorrow.

Those of you who are closely involved in the critical area of job training know the challenge we're facing. American industry has told us and report after report has confirmed that there is a growing skills gap between the work force and the workplace in the United States of America.

To put it simply: many of our people are simply not being educated and trained to meet the demands of the jobs we need filled. From basic entry-level positions to technicians to engineers and to scientists, workers who can do the job are becoming increasingly hard to find. And in the face of current demographic trends and rapid technological change, this skills crisis is becoming a menace to our nation's economic future.

This hearing is not just about job training. It's about giving Americans the power to take control of their own economic destiny. Our standard of living, our national goals and aspirations, our hopes and dreams, all of these depend upon our work force. Human capital is the key to our future productivity and economic growth.

The goal of the hearing is to find out where we are in terms of training, what we're doing right, what we're not doing and how we can do better. Hopefully, we can learn what it is we must do in

order to enable us once again to arm the American worker with the right tools, the right skills, and the right training so that we can once again outproduce, outcompete, and outthink the people of any other nation on Earth.

We will hear from some expert witnesses today who can provide some insight into current training efforts, the abilities and limitations of our work force at present, and strategies we might consider to effectively address the job skills crisis.

We will also look forward a little bit later this morning to hearing from the chairman of the House Subcommittee on Employment Opportunities, Congressman Matthew Martinez. He has been deeply involved, in the Employment Opportunities Subcommittee, in developing legislation to combat the job skills problem.

I know there have been many discussions over the years about this subject, but it is time we get down to business and really solve the enormous problems which now confront us. I sincerely hope that today's hearing will move us closer toward that day.

Now, before recognizing our first witness, let me say it's a distinct pleasure to acknowledge and introduce the Congressman from New York, Jim Scheuer, who has chaired numerous hearings on this and related issues and I'm honored to have his help this morning in today's hearing.

OPENING STATEMENT OF REPRESENTATIVE SCHEUER

Representative SCHEUER. Thank you, Senator. I congratulate you for having shown the wisdom and leadership to convene this hearing. The time couldn't be more right. We've had hearings and reports ad infinitum over the past; now is the time to do something about it.

We know what the problem is. If you don't know, come to New York City. New York City is thriving as an economic entity as we move into the postindustrial era. And we're the center of communications; we're the center of the think industries; we're the center of insurance, finance, telecommunications of all kinds.

There are lots of jobs out there waiting to be filled. Jobs that require young people who are computer literate, who can read, write, count and, above all, process information; that means making judgments with the facts at their fingertips.

Yet, at the same time we have a large pool of unemployed, of young people who are out of school, out of work and out of hope. And this is a tragic and dramatic example of this job skills mismatch.

We have a typical rate of dropoutism in our schools of 25 or 30 percent or more. These are young people who cannot make it in the postindustrial society, who do not have literacy skills, who do not have numeracy skills, and, above all, who cannot process information and make logical judgments during the course of a working day or a working life based on the information that's available to them.

To me, it's a pitiful indication of a gross failure in our society: the failure to make the capital investment in our most precious resource, our youth. It's pitiful. It's a terrible indictment of the Congress and the administration. There's enough blame to go around

for all of us. And what we need are answers and what we need are action programs now and we're looking to you for guidance.

Thank you.

Thank you very much, Senator.

Senator GORE. Thank you, Congressman Scheuer.

Our first witness is Roberts T. Jones, Assistant Secretary for Employment and Training in the U.S. Department of Labor.

Secretary Jones, without objection, your full prepared statement will be included in the record and if you could summarize the salient points in 5 to 7 minutes, we would appreciate that.

Please proceed.

STATEMENT OF ROBERTS T. JONES, ASSISTANT SECRETARY OF LABOR FOR EMPLOYMENT AND TRAINING, U.S. DEPARTMENT OF LABOR

Mr. JONES. Thank you, Senator. We appreciate the opportunity to be here before you today and to continue a discussion which, as both you and Congressman Scheuer have pointed out, has become an issue of national imperative to this country.

This is a timely hearing. Last week Secretary Dole announced that we are embarking on a new agenda, a work force quality agenda, a series of initiatives which addresses many of the most compelling work force issues that we think are now before us and I'll highlight these over the next few minutes.

As America approaches the final decade of the 20th century, several critical factors are convening which must elevate the quality of our work force on the domestic policy agenda.

You all know, and the rest of the country is fast becoming aware, that our laber force is growing slower and we are entering a period not only of a skills gap but a numbers gap for workers themselves.

The restructuring of the American economy will continue with a resultant need for a higher level, wider range of basic skills in the work force. Rapid technology change and the fundamental shifts in the nature of work require a work force that is both highly skilled and highly adaptive. Workers need basic literacy skills which include cognitive skills that enable an individual to continue to learn and adjust to work situations.

The productivity of the American work force will rely largely on the quality of our human capital and will be a decisive factor in our competitiveness in the global marketplace. Within this marketplace are countries whose industries are technologically advanced, whose workers are well educated and highly skilled. Thus, American industries must continue to upgrade their processes and their work force in order to maintain a competitive position in the world market.

An increasing portion of labor market entrants will move into the market unprepared for the job opportunities, as Congressman Scheuer has just pointed out; 25 percent or about a million students drop out of high schools annually. Of the 2.4 million who do graduate, approximately 25 percent are functionally illiterate—unable to read or write at the eighth grade level. The average high school student in Japan outperforms the top 5 percent of America's students in a test of math and science skills.

Indeed, we may be witnessing a new population of disadvantaged young people, those unable to step up to the career starting line, not solely because of proverty backgrounds but rather due to a serious lack of skills and a lack of motivation needed for the demands of entry-level industrial and service jobs.

The skills of a large number of current workers are now obsolete or soon will be made obsolete by changes in technology. Additionally, at least 20 million, possibly as many as 40 million adults experience substantial illiteracy problems.

The subject of this hearing, "Crisis in the Workplace," is very appropriate, for unfortunately our society—business, labor, education, government, and the community at large—has not yet responded meaningfully to the problems I have cited and to the work force quality challenge of the future.

Business Week magazine stated: "* * * after years of neglect, the problem of human capital has become a crisis." It is not an exaggeration to state that America's economic future is imperiled by the inadequacy of the basic literacy of our workers.

The task before us is both urgent and massive. We must assure that within the next few years each youngster entering our schools will have the opportunity to master the basic skills he or she will need to function.

The Department's plan for action announced by the Secretary last week is designed to deal with the complex and multifaceted task of bringing America's work force to the level and quality which will be needed in the 1990's. Let me highlight the major points:

One, norms for work force readiness.

The recent education summit in Charlottesville marked an important milestone on the road to building a quality work force through a national education strategy. The Department of Labor has a special commitment to increasing the levels and quality of basic literacy and educational achievement of youth entering the labor market, in part through examining academic standards and curricula to ensure that they meet the needs of today's workplace. We are considering the need of achievement norms which will be an expression of the critical elements needed to assure work readiness. Students who have reached the competency levels required by those norms would generally be ready to enter the work force.

Secretary Dole will establish a high-level commission of business, labor, and education leaders to consider the achievement norms employers require as a minimum level for entry-level work. This advice could be used to tailor reading, math, diagnostic skills, and other curriculums to the needs of local business and industry.

Two, credentialing.

Increasing evidence points to work-based learning as the most effective method of skill acquisition because this method of experiential learning generally works best for individual learners because the training can be tailored to the employer's needs.

We propose a two-tiered strategy for raising the skill level of America's work force: First, to strengthen the current apprenticeship system; second, to encourage expansion of structured work-based training which incorporates successful features of the apprenticeship system.

There are a number of industries that have outstanding training programs based on these theses. Workers receive training and instruction which are widely accepted and which serve as portable credentials.

We believe this principle should be extended to other industries, particularly many in the rapidly expanding service sector. Secretary Dole will appoint a high-level commission on workplace training with representation from industry, labor, and education to examine the value of such a structured training system in the workplace.

Third, school-to-work transition.

The Department of Labor is very much concerned with what happens to students after they leave schools, especially the 50 percent of young people who do not go on to higher education. These are the youngsters traditionally known as the forgotten half. The United States is one of the few Western nations without a formalized school-to-work transition system. With our work force growing at its slowest rate in 40 years, we can no longer afford such a loss.

We will fund a series of demonstration programs to test the innovative models which assist the school-to-work population. Next spring, we will convene a national conference of employers and union and educators and training professionals to review and discuss such a system and to share programs. We will examine ways to improve the assistance to the noncollege youth in their transition to work.

Fourth, work-based training.

Over two-thirds of America's work force in the year 2000 are currently working today. We will have to move beyond programs for future workers and devote needed attention to upgrading the skills of current workers. America's employers only spend about 1.3 percent of payroll expenses on formal training programs. Given the demographics of the labor force of the future, business must increase this proportion.

In the United States, we have traditionally looked to employers to provide the job-specific skills needed in our economy. While employers spend about $30 billion per year for formal training and anywhere from $90 billion to $180 billion for informal training, they may have to greatly expand that level of expenditure to meet the competitive pressure of the global marketplace.

There may be ways that the Federal Government can assist employers and workers to increase the investment in training, primarily because such investments in the development of human capital will yield tangible economic returns, as do investments in physical capital. With the assistance of management and labor, we will examine the incentives to employers to invest in the education and training of their workers.

And finally, this year the Labor Department has introduced amendments in the Job Training Partnership Act, which is the most successful training program ever undertaken. It can be improved. The disadvantaged and underprivileged people of this nation who need to take advantage of the opportunities in this workplace can be better served by improving the programs that we are successfully using today to reach this population.

Legislation amending JTPA was submitted by the Department to the Congress earlier this year. Within the framework of that public-private partnership and local flexibility, we would propose to better target, enhance the program quality, increase program accountability and achieve a more comprehensive, coordinated system to ensure a higher level standard of outcome.

Senator Gore, we think that these initiatives are imperative in order to improve the overall quality of our work force and to ensure that young people coming into school today can effectively assume that they can succeed in the workplace when they enter it and graduate from school.

At this time I would be pleased to take any questions that you may have.

[The prepared statement of Mr. Jones follows:]

PREPARED STATEMENT OF ROBERTS T. JONES

Mr. Chairman and Members of the Committee:

I am pleased to have the opportunity to testify before you today on the challenges to our economic future brought on by expanding worldwide competition, technological change, and significant demographic shifts in the composition of our work force.

This hearing is very timely. As your letter of invitation notes, October 8-14 was National Job Skills Week. This was an official opportunity for all us to examine and renew our commitment to developing and maintaining a competitive and productive work force. Secretary Dole has just announced that we are embarking on a Workforce Quality Agenda -- a series of initiatives which address many of the most compelling workforce issues now before us. I will highlight these in my testimony.

As America approaches the final decade of the 20th century, several critical factors are converging which must elevate the quality of our work force on the domestic policy agenda.

First, we are moving from a labor surplus to a labor shortage job market. The labor force is growing much more slowly as a result of declining birth rates and changes in immigration policies. The pool of young workers is shrinking thereby requiring employers to look beyond their traditional sources for

requiring employers to look beyond their traditional sources for entry level workers. While, in absolute numbers, the supply of labor is projected to be adequate to meet employment demands, greater percentages of the labor force will be comprised of those groups which have traditionally faced the greatest barriers to full participation in the labor force.

The restructuring of the American economy will continue with a resultant need for a higher level and wider range of basic skills in the work force. Rapid technological change and the fundamental shifts in the nature of work require a work force that is both highly skilled and highly adaptive. Workers need basic literacy skills which include cognitive skills that enable an individual to continue to learn and adjust to work situations. For example, studies estimate that the "occupational half-life," the time it takes for one-half of workers' skills to become obsolete, has declined from 7-14 years to 3-5 years (National Research Council, 1986). For some companies this period is much shorter.

The productivity of the American work force will rely largely on the quality of our human capital and will be a decisive factor in our competitiveness in the global marketplace. Within this marketplace are countries whose industries are technologically advanced and whose workers are well-educated and highly skilled. Thus, American industries must continue to upgrade their processes and their work force in order to maintain a competitive position in the world market.

An increasing proportion of labor market entrants will move into the job market unprepared for the available job opportunities. Twenty-five percent, or about a million students drop out of our high schools annually. Of the 2.4 million who do graduate, approximately 25% are functionally illiterate -- unable to read or write at the eighth grade level. The average high school student in Japan outperforms the top 5% of America's students in tests of math and science skills.

Indeed, we may be witnessing a new population of disadvantaged young people, those unable to step up to the career starting line, not solely because of poverty backgrounds, but rather due to a serious lack of skills and lack of motivation needed for the demands of entry-level industrial and service industry jobs.

The skills of a large number of current workers are now obsolete or soon will be made obsolete by changes in technology. Additionally, at least 20 million, and possibly as many as 40 million adults experience substantial literacy problems.

The subject of this hearing, "Crisis in Workplace: The Mismatch of Jobs and Skills," is very appropriate, for unfortunately our society -- business, labor, education, government, the community at-large -- has not yet responded meaningfully to the problems I have cited and to the work force quality challenge of the future. Or, as Business Week magazine has stated, "after years of neglect, the problem of human capital has become a crisis." It is not an exaggeration to state that

America's economic future is imperiled by the inadequacy of the basic literacy, mathematical and critical thinking skills of our workers.

The task before us is both urgent and massive in scope; we must assure that, within the next few years, each youngster entering our schools will have the opportunity to master the basic skills he or she will need to function effectively in tomorrow's job market.

The Department of Labor's plan of action announced by Secretary Dole last week is designed to deal with the complex and multifaceted task of bringing America's work force to the level and quality which will be needed in the 1990s. I want to highlight some of the key features of the plan.

Norms for Workforce Readiness

The recent Education Summit in Charlottesville marked an important milestone on the road to building a quality workforce through a national education strategy. While the Department of Education is working with the States and localities on reform of the educational system, there are initiatives that can be undertaken by the Labor Department to complement this effort -- particularly in the area of building on the connection between educational excellence and business success.

The Department of Labor has a special commitment to increasing the levels and quality of basic literacy and educational achievement of youth entering the labor market, in part through examining academic standards and curricula to assure

that they meet the needs of today's workplace. We are considering the need for achievement norms which will be an expression of the critical elements needed to assure work readiness. Students who have reached the competency levels required by those norms would generally be ready for entry into the workplace.

Secretary Dole will establish a high level commission of business, labor and education leaders to consider the achievement norms employers require as as a minimal level for entry to work. The advice could be used to tailor reading, math and diagnostic skills to the needs of local business and industry.

Credentialing

Increasing evidence points to work-based learning as the most effective method of skill acquisition because this method of experiential learning generally works best for individual learners and because the training can be tailored to the employer's needs. We propose a two-tiered strategy for raising the skill level of America's work force: first, to strengthen the current apprenticeship system, and second to encourage expansion of structured work-based training which incorporates successful features of apprenticeship.

There are a number of industries that have outstanding training programs based on apprenticeship. Workers receive training and instruction which are widely accepted and which serve as "portable credentials." Employers throughout the industry know precisely what skills are possessed by those who

complete the program, and the process of matching employees with employers is greatly expedited.

We believe this principle should be extended to other industries -- particularly many in the rapidly expanding service sector. Secretary Dole will appoint a high-level national advisory board on workplace training with representation from industry, labor, education and government to examine the value of structured training in the workplace.

School to Work Transition

The Department of Labor is very much concerned with what happens to students after they leave school -- especially the 50% of our young people who do not go on to higher education. These are the youngsters, who tragically, have become known as "The Forgotten Half." The United States is one of the few western nations without a formalized school-to-work transition. With our workforce growing at its slowest rate in 40 years, we can't afford this.

We will fund a series of demonstration projects to test innovative models which assist the school-to-work population. One example might be a work-based "2 + 2" Program, where students spend their last two years in high school, and two years in a community college, pursuing an integrated curriculum both in the classroom and the workplace. Employers would participate in such a program through a partnership with education, and by hiring and training the students during the learning process.

Next spring, we will convene a national conference of employers, unions, educators, and training professionals to review and discuss the school-to-work issues and to share effective programs. We will also examine ways to improve assistance to non-college youth in their transition to work.

Work-Based Training

Since over two-thirds of America's workforce in the year 2000 are currently working today, we will also move beyond programs for future workers, and devote needed attention to upgrading the skills of our current workers. Currently, America's employers only spend 1.3% of payroll expenses on formal training programs. Given the demographics of the labor force of the future, business may need to increase this proportion.

In the United States, we have traditionally looked to employers to provide the job-specific skills needed in our economy. While employers spend about $30 billion per year for formal training and anywhere from $90 billion to $180 billion for informal training, they may have to greatly expand that level of expenditure to meet the competitive pressures of the global marketplace.

There may be ways that the federal government can assist employers and workers to increase their investments in training, primarily because such investments in the development of human capital will yield tangible economic returns, as do investments in physical capital. With the assistance of management and labor we will examine the incentives to employers to invest in the

education and training of their workers.

Job Training Partnership Act

The Labor Department's Job Training Partnership Act is the most successful training program ever undertaken, but we believe we can use this program even more effectively to address a changing work place and work force. Many disadvantaged youth and adults have an urgent need for basic skills training, such as literacy and remedial education.

Legislation amending JTPA was submitted by the Department of Labor to the Congress earlier this year. Within the framework of maintaining the public-private partnership and local flexibility that are the cornerstones of the current JTPA program we seek to:

- better target JTPA programs on youth and adults most at-risk of failure in the job market;
- enhance program quality through individual assessments, service strategies, and addressing basic skills deficiencies;
- increase program accountability by enhancing performance standards and establishing achievement objectives for program participants; and
- achieve a more comprehensive, coordinated human resource system.

We believe these amendments will improve the JTPA program and make it responsive to the labor market of the 1990s. We hope that the Congress will complete action on the legislation in the near future.

Mr. Chairman, this concludes my prepared remarks. At this time I would be pleased to answer any questions that you or other Committee members may have.

Senator GORE. Well, thank you very much for your statement, Mr. Jones, we appreciate that very much.

On October 18 the Secretary of Commerce, Mr. Mosbacher, testified before another committee in the Senate that the United States has obtained all the mileage possible from the lowered dollar and will now need to concentrate on improving the quality of its products in order to make any further progress on the trade deficit.

Is it your testimony here today that poor education and inadequate job skills are currently hurting the competitiveness of American industry, or is this merely a prospective problem?

Mr. JONES. No, I think it's absolutely the case that the education, training, and skill level of our work force across its full spectrum distinctly impact our ability to compete and our ability to produce.

Not only do financial issues now cross international lines, but technology crosses international lines, natural resources are no longer a constraint, as we've seen in years past. The one single issue over which we have the ability to control our contribution to a marketplace edge is the quality of the work force and the process that one uses to produce that material.

This country has always kept itself on the leading edge of the process for production and can continue to do so with relative ease. The main issue is the new emerging relationship of understanding the investment in education and training as an absolute quality contributor in product outcome.

Senator GORE. Do you happen to know what the total amount spent on education today is?

Mr. JONES. About $330 billion is the figure that's generally used. I think it's very difficult to ascertain that in total in the public education system. There are figures as high as about $30 or so billion in the private sector if one uses formal, informal, and higher level manager training. The figures I used in my testimony are more generally used.

There is also, Senator, a figure recently published showing about a $268 billion cost of those who are failures in our education system. It is interesting to note that we are spending almost as much because of the failures in our system as we are for the education of our work force itself.

Senator GORE. Well, that's the point I was getting to. According to recent studies, American businesses, American employers are having to spend almost as much to repair the damage and upgrade the skills that were not acquired in our education system as was spent to educate these individuals in the first place. Do you agree with those numbers?

Mr. JONES. Absolutely. Absolutely. And will continue, Senator, for the next few years, no matter what changes we make. If we are able to rise to the challenge, as the Nation seems to be ready to do, right now we must understand that it still takes 15 years to educate a young person coming through that school system today. So if we are to succeed, you can't solve it overnight, there's a leadtime here. And during that period of time industry, unfortunately, will be faced with continuing to address its own work force and its ability to adapt to these changes.

Senator GORE. It has become a cliche to point out that we're in a global marketplace now. That fact is abundantly obvious to all who

have eyes to see. And in the past, entry in the world marketplace has meant that many American industries were penalized by the higher value in their finished products that comes from a higher wage scale.

But the level of automation is now reaching the point in many industries where that percentage of the final product's value is low enough, that percentage represented by labor costs is at a level where it is less significant in determining the competitiveness of U.S. products in the world market overall.

We are on the threshold, therefore, of reentering many manufacturing fields where we used to be successful but then fell behind. The key to taking advantage of this opportunity, however, is having a work force capable of dealing with the increased levels of automation and the new technology that make that automation possible.

Can we acquire those skills in our work force in time to take advantage of this new opportunity?

Mr. JONES. Well, I think the answer is we must. I don't think it's a question of can we. Obviously, we can, but more importantly we must. If, in fact, it is the quality of the work force and educational level needed to fill those particular jobs to maintain a quality standard and a quality product, then that's the answer and we must set about doing it. The four or five points that we outlined we think are important to that particular outcome.

Part of it is the school system, where we must set norms and standards and begin to teach to those levels to ensure that those people coming through the system don't have to be remediated, but can move effectively into the work force. And the second part is to create a training system, both in the school to work and in the workplace in this country that is an investment target, that moves the quality of that process up and ensures both worker and employer that they have the necessary skills to succeed in that workplace. It can be done. But it requires in effect making the 1990's and years beyond the age of human resources. This is the issue of investment.

Senator GORE. Why do you think it's so hard to get people to take this issue seriously?

Mr. JONES. I think one of the greatest prides in this country has been our public education system and the ability in this country to come through that education system, to move into the workplace and the ultimate American dream of anyone who does that and works hard can work up to the top of the process.

We've changed the rules and we forgot to tell the American people that that system no longer gets you there. The education system does not today prepare most entry-level people for the work force they're about to enter and, second, you don't get in the company and participate in an upwardly mobile job growth opportunity without basic skills. It's the ultimate of absolute discrimination.

Senator GORE. So we're operating on the basis of an illusion that we've carried with us from the past: it used to be true but it's no longer true, is that basically it?

Mr. JONES. I think that's it. It's not an illusion, it's in fact the primacy of the American dream and it will continue to be. But the rules of how to actuate it have changed and it's absolutely impera-

tive that we as a society and a country adapt our systems to ensure that everyone still has access to that dream.

Senator GORE. My children sometimes watch "Road Runner" cartoons. And you may be familiar with the scenes in which Wylie Coyote is racing at full speed and comes to the edge of the cliff and keeps on racing and his feet keep on moving and only when he looks down and realizes that the ground is no longer underneath him does he fall rapidly to the canyon floor.

It seems to me that we are in a similar position, assuming that we still have the ground beneath our feet in the form of a good solid educational system that will prepare us for the future, and yet when we look down and see how it's actually functioning, we find that disaster looms unless we quickly find a way to meet this—to solve this problem.

Let me conclude my questions at this point. I want to welcome Congressman Martinez.

Congressman Scheuer has questions for Secretary Jones. I'm informed that Congressman Martinez has to chair a hearing. If it will not be disconcerting, I might suggest that we will ask Congressman Martinez to deliver his statement now, I'll then recognize Congress Scheuer for questions to Secretary Jones, if that's amenable.

[Representative Scheuer nodding affirmatively.]

Senator GORE. Congressman Martinez, you're my partner in many of these efforts and we've worked on National Job Skills Week together and a number of other matters and, of course, as chairman of the subcommittee in the House, you've been an outstanding leader in these fields and we're delighted to have you here this morning.

Please proceed.

STATEMENT OF HON. MATTHEW G. MARTINEZ, A U.S. REPRESENTATIVE IN CONGRESS FROM THE 30TH CONGRESSIONAL DISTRICT OF THE STATE OF CALIFORNIA

Representative MARTINEZ. Thank you very much, Senator Gore. Of course, like you say, we have collaborated on quite a few things and it's been enjoyable and rewarding.

Let me say before I start my statement that I also have had the pleasure of working with Mr. Jones for over an 8-year period now and I've found that he's very cooperative and he's very intuitive about the issues and situations that exist out there. What we both need, Senator, is a lot of cooperation from a lot of other people, both in the House and in the administration, to work toward accomplishing some of the goals that we have.

Let me start. It's my distinct pleasure, of course, to appear here before you. As the chairman of the House Employment Opportunities Subcommittee, I have a deep concern for issues of employment and productivity. In addition, I have had the honor of being the joint sponsor with you, Senator Gore, of the annual resolution designating Job Skills Week to underscore need for job skills training in our nation.

Senator Gore, as President Kennedy once observed, if we as a nation work together to invest in the future, then when the eco-

nomic tide of well-being comes it will raise all the boats in the water. If, however, we do not take those long-term measures to provide for the market needs of the future, then, as a nation we will fail to attain our global and economic destiny.

Let me begin with some observations, which I will present as the bad news before I give you the good news.

We are in the midst of a war for the hearts and minds of our nation's youth and, thus, for much of our nation's future. Every day local news accounts are filled with stories of teenage violence, drug addiction and trafficking, teenage and juvenile pregnancy, and the school dropout crisis.

Our nation is one of the least literate countries in the world, with minority student dropout rates in some cities reaching 75 percent. In addition, older and displaced workers are finding their lack of literacy an absolute bar to finding jobs in an increasingly service-oriented economy.

Skilled industries, such as the emerging high-tech industries, are finding it harder and harder to meet their labor needs.

Welfare dependency is becoming an intractable problem; severe malaise and generational cycles of poverty and welfare dependency ensure a permanent underclass society which is not being productive while siphoning away limited public resources.

The manufacturing and basic industry sector of our economy are leaving the American shores sometimes never to return again unless we do something and do something quickly. While the jobs in the labor market are moving to service industries which, as I indicated earlier, require greater levels of education, our labor force is growing older. More mature is another way to put it. By the year 2020, almost one-third of our working population will be over the age of 50.

We are also facing the feminization of poverty. By the year 2000, 100 percent of all families living in poverty will be headed by a female.

Finally, the critical question to be asked behind the surface issue of how to focus policies is the age-old one: who pays for what and how much?

The fortunate thing for us is that there are solutions to these problems. Not because I have faith—which I certainly do, I have faith in America's innate resourcefulness and the pragmatic can-do attitude typified by our nation—but because the key elements of programs and resource bases are already in place.

There are some essential ingredients for tackling our work force problems. First, as a society we must adhere to value systems of personal, family, and local responsibility. Not surprisingly, Federal interventions have not been entirely, and can never be, adequate to instill values or work ethic, professional responsibility and commitment to other members of family and society. Many, many innovative programs on human resource development are generated at the local levels which can be replicated elsewhere.

Second, work force development must focus on long-term investment in long-term skills. Short-term fixes, except for some benefit of accumulating job experience and minimal work attachment, will generally only get short-term results. On the whole, skills training

needs to be augmented by cognitive quality skills training and support service assistance to be successful.

Support assistance includes mundane but critical concerns such as transportation, medical coverage for the family, child care and career and other forms of counseling. It should be emphasized that most studies show that the most flexible and beneficial long-term skill that an individual can acquire is education, a good basic education.

We have in the past, in different studies and hearings that we have held in our subcommittee, found out that in the long term if a person has a good basic education, they may change jobs often but they will always be able to get work. In the long run, I believe that it's easier to educate and motivate than to incarcerate.

Fourth, all approaches to job skill planning and implementation must be accomplished in partnership between the public and private sector. The private sector must be utilized for its direct vendor and purchaser expertise, resource base and creativity. These partnerships are essential if we are to achieve full productivity and employment.

Fifth, we must use all current systems in a way which avoids duplication and ensures that various systems work with each other to deliver the final workplace product, a prepared worker.

We are all aware that various institutions such as education, job training institutions, welfare and economic development, vocational and adult education, and apprentice systems jealously guard their turfs and moneys and never work with each other as part of a whole unit. This must change.

Sixth, any on-going program or system or new programs must be driven by the outcome and performance measures that reflect not only the program goals but the needs of the business community. While it is not a popular notion, government must take an agressive leadership role in providing technical assistance and in monitoring and enforcing the efficiency of the public programs. This notion of performance measures and outcomes should be tied to the larger notion that as a nation we demand quality and competence in any programmatic and personal endeavor that we engage in.

Seventh, in a similar vein of outcomes, all public programs and moneys must be tied to a system of accountability. We are spending tax dollars and must hold officials and programs accountable for outcomes and assessability. While we want local flexibility, we cannot condone fraud and lack of program accountability or direction. While cognizant of the general reaction against redtape, to implement successful programs we still need relevant data. We need to use data in a better way to square programs with desired outcomes.

Eighth, knowledge must be institutionalized as a resource base. There is no reason that local and State, as well as private sector, initiatives can't be replicated elsewhere. There's no reason to reinvent the wheel when so many successful and alternative methods exist to accomplish the same labor resource objectives.

Finally, and very importantly, we must eradicate from our workplace any and all vestiges of discrimination and artificial barriers to employment opportunities. As a nation, we can only be as productive and healthy as our weakest and least productive link.

As a nation of immigrants from other cultures, our strength has been our diversity and our pursuit of the unified American dream. Our elderly, our displaced, and our disabled all have a lifetime of wisdom and experience as well as a talent to offer us. We must harness all of our nation's precious human resource in order to succeed in the coming millennium.

I will end my discussion at this point with the good news: That our nation's private sector and our public sector education and training systems are more than capable of meeting the challenge of work force 2000. The manner in which we approach the next decade of challenges and accountability will restore America to the forefront of the free world countries.

I began my statement by referring to the economic tide of well-being that will raise all the boats when we as a country prosper. On an individual level, I offer a parable from the bible that is appropriate: If you feed a hungry person, you merely feed him for one day. But if you and I can somehow teach our nation's citizens how to fish for themselves, then we will have fed them for the rest of their lives. This is the critical role of job skills and education training and what it means to our country.

Senator Gore, I commend you for your thoughtfulness and concern on behalf of our nation for holding this hearing and trust that in Congress we will emerge with a meaningful solution to this crisis of the workplace.

I thank you again for inviting me.

Senator GORE. Thank you.

We're delighted to have that statement and I want to again commend you on the leadership you have for so long provided on this issue.

I don't have any questions and I know you have to get back to chair that hearing, but I want to afford my colleagues any opportunity they want to take to question you.

Representative SCHEUER. Well, I just want to congratulate Congressman Martinez for his insight and his leadership and his courage in coming and saying some hard facts that have to be said. It isn't easy for him, as a distinguished leader of a minority community, the Hispanic community, to put the facts on the table. Yet, he has done so fearlessly, very thoughtfully and I congratulate him for the outstanding leadership that you're contributing, Congressman.

Representative MARTINEZ. Congressman Scheuer, I thank you very much for those kind words.

You know, as a Hispanic and a member of a minority community, I'm concerned about them. But I'm concerned about all Americans.

You know, what we don't realize is that many of those ghetto neighborhoods that we talked about, they're not only poor Hispanics there that are suffering and they're not only poor blacks and not only poor Asians, there are a lot of other people who are living in those circumstances because they don't have any alternatives. And we haven't done enough to provide the alternatives.

And what we need to do is open our eyes—and it's not that we haven't opened our eyes. As I said earlier, Mr. Jones, over at the Department of Labor, as long as I've known him over the 8 years, I've always known that he has intuitively known what the prob-

lems are. But there's the restriction of money, there's the restriction of control from different government agencies and the administration and Congress and what they can do.

But as Senator Gore said earlier, are we insensitive to the situation or why don't we know that it exists. I think there are a lot of people that do know it exists. But I don't think until the general public becomes aware of how much this is a factor to our well-being into the future will they start to react and create the political pressure that needs to be created to cause us to do the things we have to do.

Representative SCHEUER. Congressman, let me respond to that.

I think you have done a marvelous job in alerting the American public. In fact, you have succeeded. The American public is so far ahead of the Congress and the administration in their awareness of the inadequacies, the gross failure of our American education system, it's pathetic.

We in the administration and in the Congress are a bunch of dumbbells. The American public understands the situation far better than we do. As a matter of fact, Lou Harris testified 2 years ago at a hearing that I conducted—9 days of hearings on what we have to do to achieve a competitive work force—he testified that he questioned Americans, "Would you be willing to pay an extra 2 percent in taxes if it went to education purposes?" and something like three-quarters of them said yes. They're aware of the problem.

We have maybe 15 Governors around the country, Democrats, Republicans, the whole works, who have spent major funds, State funds on education. And they have benefited—not only has their State education benefited, but they've been rewarded at the polls by their citizens who paid the extra taxes gladly to achieve a better education system.

So I feel that you have really done your job to a fare-thee-well. The American public is well ahead of us on the loop and it's about time we caught up with the public's awareness of the desperate situation our American education system is in.

Representative MARTINEZ. Amen. Thank you, Congressman Scheuer.

Senator GORE. Congressman Obey, do you have any questions for Congressman Martinez?

Representative OBEY. I don't have any questions. I simply want to apologize for not being here to hear your statement. I'm sorry I'm late.

I do want to say I disagree with Congressman Scheuer, I don't think we're dumbbells, dumbbells have weight. [Laughter.]

And in fact, this town has lost all weight because it isn't serious any more on these issues. It attacks these problems with all of the determination of a featherweight.

Representative MARTINEZ. I agree with you. I get so frustrated so many times because I can see the problems there and I talk to people like Mr. Jones, Senator Gore, Congressman Scheuer, and the rest of you and still we don't move.

I mean, it's obvious. Last year when we had an opportunity to pass the English Proficiency Act, which would provide moneys for community-based organizations to instruct people to learn English—because without learning English you're not going to do well

in school—those kids that are in school need more bilingual education, and I'm not saying that bilingual education is for everyone, there are some kids that overcome the language barrier without it. But for those that do need it, we should provide it. And there are a lot of programs like that that we don't act quickly enough on.

And I guess I have to agree with you, Congressman Scheuer, the public is aware of it and they're telling us but we're moving very slowly.

And I agree with you, Congressman Obey, we're moving too slowly, and we ought to come to grips with that because if we don't we're going to have some real problems.

Thank you.

Senator GORE. Thank you, Congressman. We appreciate your appearance here.

Mr. Jones, thank you for your patience. We're going to resume our questioning of you after your excellent statement.

Congressman Scheuer.

Representative SCHEUER. Well thank you, Senator.

Mr. Jones, I've never met you before and I don't want you to take any of my remarks in a personal way. But you're the guy that's here, you're the only guy I can kick around.

Two years ago I had your predecessor here——

Mr. JONES. Yes, sir.

Representative SCHEUER [continuing]. With the same title, Roger Semerad. Republican in good standing. And I had his boss, the Secretary of Labor, Bill Brock, a terrific guy. They gave brilliant testimony on exactly, precisely the subject on which you testified today.

Yet here we are reinventing the wheel. I almost went into cardiac arrest when I heard you say you're going to have a conference next spring on what to do about this problem. Mr. Jones, we don't have to reinvent the wheel.

I had a set of hearings over 9 days and we came up with a lot of good answers. But there were hearings before that and hearings after that. This subject has been so studied and mulled over and thought over and raked over. We don't need another study, we don't need another conference next spring.

I suggest that you go back to your office, call former Secretary Bill Brock, call former Assistant Secretary for Employment and Training, the same title that you now hold, Roger Semerad, and have lunch with them some day. And you'll put together one hell of an action program and you won't have to wait until next spring.

We had a variety of Governors, Governor Bill Clinton, represented the National Governors' Association, Edward Dupree of Rhode Island, Robert Orr of Indiana, Richard Wylie of South Carolina, James Hunt of North Carolina.

Here are the corporations, the Fortune 500 corporations where either their chief executive officer or somebody damned close to CEO testified before us, urging us, appealing to us, cajoling us: Du Pont, IBM, TRW, Motorola, Aetna Life Insurance Co., Proctor & Gamble, and Telesys.

What more do you want? What more do you want, Mr. Jones? Why do we have to wait 8 months for you to convene yet another group to put together a program that will probably take them 3 to 6 months. So we'll be here a year from now looking at yet another

report. Why can't you hit the deck running, come to us on the first day of the second half of the 101st Congress and give us a legislative program?

Representative Martinez and the three of us up here will greet a sound, well thought out program with joy and with enthusiasm and with bipartisan support.

As I said before, the American people are so far ahead of us, the administration and the Congress, so far ahead on the loop it's just painful. We seem to be uncapable of governing. To govern, you have to be sensitive and responsive to situations out there. And this situation has been drummed into us time and time and time again.

I don't want to read you the conclusions from my report—I could, it would take 5 minutes. They're the same conclusions you're giving us now and the same conclusions your group next spring is going to give us next fall. When are we going to get to the job of doing it?

A very good start, I would suggest, is to fully fund the Head Start program.

Right now our country is so spoiled, so self-indulgent, so oblivious to the future, so committed to a consumer binge in the present, that while we're borrowing $160 billion a year to buy consumer electronics and cars from abroad we don't have the guts and the integrity and the caring about the future of this country to fund a program, a proven program that helped kids who are at desperate risk of education failure.

We don't have the decency to spend $5,000 or $6,000 or $7,000 for them over a 2-year period to help them make it. Giving them an enriched preschool experience that can help kids from seriously deprived homes: homes without a book, without a newspaper, without a magazine, homes devoid of cerebral thought, kids that don't hear a cognitive sentence or paragraph at home, kids who don't know the days of the week when they come to school, don't know how to tell time, don't know how to tell the difference betweek silk and wool, kids who are out of it if they don't get some help in the form of an enriched preschool program.

Head Start; it's a demonstrable success. It was the gem in the crown of the poverty program. Why aren't we fully funding Head Start for the $7 or $8 or $9 billion that it would cost? I don't have an answer that I can accept. This is an investment. It is not an expenditure, it is an investment in our most precious capital resource, our most precious capital, our human capital. Why cannot the administration come up here and say they want to fully fund Head Start?

It's not a matter of staffing, we could do it over a 2- or a 3-year basis and we could pull in all kinds of school aids.

Many States are doing this. They're saying to the bus drivers and the maintenance people and the people who serve lunches: If you want to help kids, come on in and we'll give you a course for 2 or 3 or 4 or 5 months and then you'll help to man a Head Start program.

After all, there are lots of mothers who manned a preschool enrichment program: my mother did, your mother did, these mothers

did, and they didn't get a hell of a lot of specialized education. And yet they raised kids who could make it.

Why can't this administration come in to us next January with a well thought out program for enriching our education system and doing it now? And not force us to wait for a report that we'll get maybe this time next year for a conference that you're calling next spring.

It's ridiculous that we have to reinvent the wheel like this every year or two.

Senator GORE. Do you want that question repeated, or do you want to [laughter]——

Mr. JONES. Let me suggest, Congressman Scheuer, in the true essence of the feeling that your comments are expressed, that I would appreciate if we could go back just for 1 minute and focus on what I said.

I disagree with you. We're not calling a conference next spring to reinvent this wheel. We've been at the heart of this discussion for some time and we're ready to move on, to talk about solutions.

I don't think those solutions come in any instant legislative package that somehow miraculously hasn't been introduced up to this point in time by a lot of people who are a lot smarter than I am. I think it comes from some very difficult questions, and let me just go back and name them.

If we are to change the products of the school system today, whether it's the early group in Head Start or the later group in the midyears or the high school failures that we having, then that's not going to happen in a legislative package. It's going to happen from some fundamental changes in the education system.

And what we called for, which I think is at the heart of every discussion we are having with every one of the people you just mentioned—with whom we consult constantly—is a call for a meeting of educators and business people to set national norms of what it takes to work in today's workplace and to begin to direct our school systems, as Senator Gore pointed out, to teach to those levels.

That's a major fundamental change in the system that we have but it's probably the one you're going to have to undertake if we want to change the outcome of the system in anything other than just process ways.

And you can't legislate it; it doesn't exist today. We're going to have to create what those norms are from the business world that's working in a new workplace and a new system. It's going to have to be done with credibility and it's going to have to ultimately be done at the State and local levels. But there is a very significant role of national leadership that can be played and I think that's what we have proposed and what we're about.

Second, I think the issue of school to work and the issue of how we structure training in our workplace are absolutely at the heart of how to improve the quality of workers that are currently in that system, along with the incentives for business to begin to invest, as well as the States and the Federal Government.

Those are fundamental issues of what it takes to change the state of play that's out there today. It's entirely possible, I'm sure, that once the products of some of those efforts come out that per-

haps legislative changes will take place. We will propose some ourselves.

But I would not stand in front of this committee and ever suggest that anybody could walk in here today with the legislative answers in those kinds of arenas that change the fundamental structure of our system in terms of its outcome in some instant way and think that it's going to solve this problem.

Representative SCHEUER. Mr. Jones, I agree with your goals, we do have to make structural changes in our education system at the State level and some changes at the National level. The vocational education system, to take one, is a disaster.

But these problems have been discussed and discussed and discussed ad nauseam. Business leaders were in here from the Fortune 500 at hearings that took place 2 years ago, from late September until early December of 1987. We published our report in 1988. And here we are at the end of 1989 and you're raising the same problems that they raised 2 years ago, that we have to have a nexus between the school system and the world of work.

We had all these corporate CEO's. I just read their corporations, they testified to the same thing 2 years ago. There are programs in New York City and elsewhere where there is a continuum between the world of school and the world of work.

Why don't we just put together the programs? We know what to do. We don't have to know everything before we do anything. And we know a hell of a lot about things that State Governors and the corporate CEO's from major Fortune 500 corporations say will work that are being done now. We're doing this in New York City.

Why do we have to wait for a year from now for a report about this conference you called for next spring? Why don't we just work on the accumulated evidence and wisdom that has already been accrued, that's part of the record?

If you sit down for lunch with Bill Brock and with Roger Semerad and with Admiral Jim Watkins who testified before us, who is now our Secretary of Energy, in 2 hours they will sketch out a programmatic design to vastly improve the efficacy of our school-work situation and bring people into the work force with reading, writing, and counting skills and the ability to process information and make judgments on the job, which is the most important thing.

It has all been there. It's all there. Why don't we just do it? Why don't you come in for a program of full funding for Head Start, the indispensable precondition of education success for hundreds of thousands of kids who are desperately at education risk?

These problems that you've addressed have been addressed before. The problem of structural change in our school system has been addressed before. There are people—these people that I mentioned to you—plus and expert from the Carnegie Foundation, Mark Tucker, who is executive director of the Carnegie Foundation on Education and the Economy—they've thought through this and rethought through this and formulated programs. Why can't we get at it?

Senator GORE. Do you want to respond?

Mr. JONES. Well, I think the only thing I would suggest is in fact the very people you have mentioned are the ones that we're working with, who have, with us, agreed that the agenda that we've out-

lined here is the next step that ought to be taken in this process. Every one of those people that you just mentioned has been working with us directly on these issues and we think these are the steps that are necessary.

And I do not believe once again that there is an instant, immediate answer on school to work or credentialing or the norms in the school system that any of the Governors or anyone else has put in place—that's why they called for it themselves in the National Education Summit. I think we are now into what those next steps are, I think they're imperative and I think they're specific and I think that changes will result from them.

Senator GORE. We're going to have to move on to Congressman Obey, but let me interject one question, if I might, just to put a focus on one part of Congressman Scheuer's question that I don't think you have responded to:

Do you agree that Head Start is a successful part of any strategy to upgrade the education levels and skills of our work force?

Mr. JONES. Indeed, I do.

Senator GORE. Why then do you not recommend full funding of Head Start?

Mr. JONES. Well, No. 1, that's not my job. But, No. 2——

Senator GORE. Well, would you recommend that here today?

Mr. JONES. I would recommend a whole series of changes in the——

Senator GORE. Would you include that—would you recommend full funding of Head Start?

Mr. JONES. Senator Gore, that decision, both in the administration and the Congress, has to be taken in context of the total investment in this discussion, not just one piece of it, whether it's Head Start or whether it's——

Senator GORE. So you're not sure whether you would recommend full funding of Head Start?

Mr. JONES. I would recommend funding of any program that we think is necessary in this discussion to the extent that we can afford to do that.

Senator GORE. Well let me just say, with all due respect, Mr. Jones, I do respect your knowledge and the excellent work that you've done in this field and I think you're a resource for the administration to draw on.

But it might be that one reason our country has not moved forward more boldly and effectively is that there has been lack of precision in communicating exactly what needs to be done. It's sometimes easier to simply describe the overwhelming urgency of the problem than it is to really commit yourself to doing what's necessary.

Everybody—with the exception of Bill Bennett, I think everybody else agrees that Head Start has been a fabulous success, all the studies indicate that. Everybody knows you get the biggest payoff in early education. Yes, a lot of other things need to be done, true. But we've pinned that down, we know what needs to be done. We know that it pays off handsomely many times over for each dollar invested.

But for reasons that have to do with the large context of the budget, you're unwilling to say here, after all of the fine state-

ments about how serious the problem is and how our nation's destiny depends upon resolving it, you're unwilling to say, even on the one program where there's no disagreement, we should fund that program? You can't even say that.

Do you feel constrained and hog-tied by the fact that the President of the United States is willing to swear on a stack of Bibles that we don't need new taxes or significant structural changes on the spending side, is that basically the reason why you're unwilling to even recommend funding of Head Start?

Mr. JONES. No, Senator Gore, I don't. And I think it's irresponsible for any of us to argue that the sole significant answer to this issue should lie in whether we want to fund one program, any more——

Senator GORE. I just said that. Of course, there are other programs that are needed.

Mr. JONES [continuing]. Than the Congress itself has not addressed that same issue over the last 4 or 5 years, any more than the administration has. Because they don't balance it one-on-one; it has to be balanced in the context of the other issues that are in the education continuum.

Senator GORE. Well, let's just leave it in this big vague morass and nothing will get done and we'll continue to just be dead in the water on this. I mean, that's the recommendation that comes after the fine statements.

And I don't want this to sound personal. I really do respect your work on this issue. And I think I understand why you're reluctant to recommend specific answers to it.

But the problem is serious enough now that we have to get beyond this impasse. And people like you, who know what needs to be done, have to be willing to stick their necks out a little bit and say, look, I'm tired of going up to Congress and dancing around this issue with vague pronouncements. I recommend publicly that we do the following things, Mr. President, *a, b, c* through *z*. And then let the chips fall where they may.

But that's obviously not going to happen this morning.

Congressman Obey.

Representative OBEY. Senator Gore, I don't want to take a lot of time; I'd prefer to hear the panels. Let me simply ask Mr. Jones two questions:

What do you think we can expect the administration to do with Job Corps in the coming years?

The reason I ask that comes from wearing my other hat as a member of the House Labor, Health, Education and Social Services Appropriations Subcommittee—the titles get longer than the work day on those subcommittees these days.

But, as you know, for a number of years we had to battle recommendations to gut the Job Corps in the previous administration and then, for the past 3 years, we've had a lot of problems simply trying to get five new Job Corps centers constructed that the administration was told to provide under that appropriation bill.

Where does the Job Corps fit in your plans and what can we expect to see happen with respect to its budgets in the next 2 years?

Mr. JONES. Well, as you know, we've suggested several times that the Job Corps is an extremely successful program that continues to be at the heart of many of the discussions that we're having.

We announced earlier this year those six new Job Corps centers that were to be built and they are all in process at the moment. That process will take some time. In some cases it's regional site selection all the way through the engineering and the rest of that process.

The only debate that we have between the committee and ourselves constantly is the amount of money that it takes to run the operations of the on-going 40,000 slots versus construction costs, and to make sure that those are in the right categories and we continue to work with the committee on that issue. But it's not a policy issue in any respect.

Representative OBEY. Last question: Most of the progress that will be made with respect to improving the nature of our work force, I'm convinced, will be made by people other than the Federal Government—the private sector, local schools, et cetera.

Nonetheless, assuming the Feds don't totally bug out on their responsibilities, if we had $3 billion more to allocate next year, where in your best professional judgment would that money best be put between Head Start, JTPA, Job Corps, or any other programs you want to name.

Mr. JONES. Well I don't know, Congressman Obey. I think we have to focus on—probably the most important set of issues here continues to be, whether it's Job Corps or it's basic high school or voc ed, any of those three, we continue to put people through the system, whichever system it is, and not bring them out with a level that allows them to believe successfully that they can enter that workplace and be successful.

If you were to invest in JTPA, you and I know we can't solve that in a 6-month training program. Even Job Corps doesn't bring them to that full level in 7, 8, 9 months average length of stay. And in high school you can't solve it in the 12th grade, you have to step back to a lower level in order to remediate people and you have to invest in that issue.

I don't know the amount of money. I don't know whether that amount would do it or not. And how far back you have to go to remediate to bring people to that level.

I do know this: It's more than an economic imperative. It's an absolute national imperative that a young person today enter a public school and be able to succeed when they graduate and not fail because of the failure that's in that system. And if $3 billion is what it takes to do it, then that's where you are.

Representative OBEY. Oh, I'm not suggesting that that's the right number. I'm frankly just picking that number out of the air and asking if we had that—which we undoubtedly won't—where would you put it.

That's all.

Mr. JONES. And the answer to that is that the second chance systems, any of them, by themselves, are not priorities over the basic education system.

Representative OBEY. Thank you, Senator Gore.

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Senator GORE. Well, I don't understand the answer. Does that mean that you would then put most of it in Head Start and in the basic educational part of it?

Mr. JONES. I think if you're trying to address the totality of the issue, that's clearly the major impact that you're going to have is in the mainline system. And second, to raise to those levels in our second chance system is a major second investment. I mean, we have very short-time access to those people.

Senator GORE. Would you do it two-thirds in the basic education, one-third in the second chance systems?

Mr. JONES. Senator Gore, without understanding the impact of the dollars, I wouldn't know how to divide it. I've made the point of where I suspect the greatest impact can be and the highest level of achievement must be.

Let me make one other point though: in spite of all of our arguements, the issue here can't be money by itself. It has to be what level it takes to work in this system. We need to articulate that in the school system, in the family, in the workplace. The biggest issue today—whether it's money or not is unclear—is the fact that we don't test and we don't remediate and we don't educate to a level that we understand is a successful work entrant. Until that issue is addressed—money can disappear into the process faster than anything in this world and still not meet that standard.

Senator GORE. OK. Well, thank you very much.

I want you to understand, as I hope you do, that the frustration we feel with the lack of progress after Congressman Scheuer's hearings 2 years ago, after the work Congressman Obey has done on this question, Congressman Martinez and others, is not directed at you personally. I had hearings in the House of Representatives some years ago and I agree with Congressman Scheuer's earlier statements that the nature of the problem has been clear for some time. And yet the solutions have not been forthcoming.

And again the frustration that you hear in our voices is not directed at you personally, it is directed at the lack of any progress by this administration and by this country—and indeed the problem is more complicated than just getting more money. I think that's a useful point to remember. But a lot of the solutions cannot be implemented without more money.

If you would supply for the record your listing of the other things which should be done—you said in response to a question on Head Start there are a lot of other things which should be done. I'd like you to list those, if you could, for the record. Would you be willing to do that?

Mr. JONES. Yes.

Senator GORE. Thank you very much and we appreciate your testimony here today.

[The following information was subsequently supplied for the record:]

As I have indicated, I believe Head Start is an important program that should be supported. I also believe that follow through with students in subsequent years is necessary. A prevailing concern of the Department of Labor is the challenge presented by youth who are not adequately educated by the public schools. Particularly in inner cities, there is a problem of minority males losing interest in school quite early in life. Associated problems include juvenile delinquency, drug abuse, idleness, and lack of educational achievement necessary for participation in the labor market as an adult. Employment and training programs are a "second chance" system that deals with youth who fail or are failed by school systems.

I believe we need to address the problems of basic skills deficiencies and lack of work readiness. Young people, especially those at-risk, require clear awareness of the skills they need to obtain to succeed in the labor market, and the means for achieving them. To better define the skills that are needed in the workplace, Secretary Dole has announced that she will establish a high level Commission of business, labor and education leaders to develop national competency guidelines that reflect work readiness, to be used at the State and local levels to aid in the development of curricula for both schools and training programs.

We also need to find ways to better assist non-college bound youth in making the transition from school to work. We may need to develop new institutional arrangements for merging school and work. As a first step, we will conduct a series of research and demonstration projects, through business and education partnerships, that combine the learning of academic skills with applied learning in workplace settings. These projects will result in a series of models that may be adapted by educators and employers for building local school-to-work transition systems. We also plan to convene a national conference of employers, unions, educators and training professionals to review and discuss projects that have worked, and to explore options for fundamental reform of how we assist non-college bound youth in their transition to work.

We need to make sure that poor, at-risk youth don't become the victims of school reform. School reform has created stricter academic standards in our schools. Measures such as school dropout prevention are needed to ensure that at-risk youth are not ignored.

We need to consider restructuring schools which are of such size that certain students cannot cope and are lost in the shuffle. We need to recognize that different youth learn in different ways. One promising approach, which we are testing, is to provide education in alternative schools which give the personal attention necessary for reaching youth with disadvantaged backgrounds.

Senator GORE. Let me call to the witness table our first panel of witnesses: Mr. Anthony Carnevale, executive vice president and chief economist for the American Society for Training and Development; Mr. Badi Foster, president of Aetna Institute for Corporate Education; Mr. Larry Hirschhorn, senior research manager, Wharton Center for Applied Research; and Thierry Noyelle, associate director, Conservation of Human Resources at Columbia University.

Gentlemen, without objection your entire prepared statements will be included in the record in full. We invite you to proceed with a summary of 5 to 7 minutes. We'll start with you, Mr. Carnevale.

Let me say that by prearrangement I'm going to briefly turn over the gavel to Congressman Scheuer because I have to present testimony in the Senate Foreign Relations Committee and, as soon as that is over with, I will return.

So thank you very much and, Mr. Carnevale, if you could begin.

STATEMENT OF ANTHONY P. CARNEVALE, EXECUTIVE VICE PRESIDENT AND CHIEF ECONOMIST, AMERICAN SOCIETY FOR TRAINING AND DEVELOPMENT

Mr. CARNEVALE. What I'd like to do is try and address some of the issues that have been raised in the prior testimony, at least from the point of view of somebody who not only interacts in Washington but in workplaces throughout the Nation.

I think what we're talking about here today are barriers to change and there seem to be many of them. I think that the primary one, however, is old habits that are dying very hard; dying especially hard because at one point in time they were very good habits.

There has been a fundamental shift in the way we compete in this economy and in the world economy. The old time religion is really dead and in many cases we, as a nation, are having trouble shifting to the next economy, for the most part because we're so good at the last one.

And what I mean by that is that for well over a hundred years now, since the middle of the 19th century, we've been the world's productivity leader and we still are. Others are running faster and will catch us by the end of this century: five nations, given current trends, will do so, and the Japanese by 2003.

But we're still the master of the mass production productivity-based economy. We're better than anybody else at making things in great quantity and at lower and lower prices.

Unfortunately, that's not the way the world competes any more, at least not principally. We now compete not only on the basis of productivity but on the basis of our ability to provide quality products, on the basis of our ability to provide variety in products and services, on the basis of our ability to customize products and services for the consumer or the user and on the basis of our ability to provide convenience in the consumption of the product.

And while, over the past 20 years or so, we've made some fairly decent gains in productivity and then finally a collapse in the mid-1970's with a fairly minor comeback in the 1980's—it concerns me that that comeback isn't based almost exclusively on changes in the overall costs of production; that is, we've decreased cost and in-

creased productivity principally by firing people and by reducing the overall commitment of resources required to make goods and deliver services.

And I would agree with the remark attributed to Secretary Mosbacher here that we have obtained essentially all we can on a reduced dollar value, out of downsizing, that we're more and more on an equal playing field in competition in the world, but that the next steps in competition will require much more profound changes in the way we do business. The old time religion is not good enough any more.

And one of the principal changes is the way in which we use people. In the old days what was required was a very hierarchical and large institution with white collar and technical elites installed at the top of it who made very special purpose machines, combined those with relatively unskilled workers and then produced at lower and lower cost and higher and higher quantity.

Nowadays a very different set of skills is required. In the old days, if you were in the noncollege half of your high school class, you got a bad education and it didn't matter much, either to you or to the economy itself. It matters a great deal now, both in terms of the earnings potential of individuals and the competitiveness of institutions.

In the old days when you went to work at an American workplace if you were a nonsupervisory worker you got very little training, you were essentially responsible for your work effort and for your job assignment and it was a narrow one.

Now machinery has taken more and more of the redundant work away and more and more of us operate like white collar and technical elite workers. More and more of us are required to take responsibility for the quality of the product, more than our work effort, to interact with people up and down stream in the production or the work process. And so we require interpersonal skills.

More and more of us are required to customize the product for the customer or to provide convenience in its delivery, which means we have to have a whole set of skills. We have to problem solve, because more and more of us—like white collar and technical elites—are dealing with exceptions all the time.

And when you're dealing with exceptions you need a set of skills that are robust enough so that you can use them to do a variety of things as they come up. Most of us, for instance, as managers don't hire or fire people very often, but when we do, we need to have the skills to do so.

American workers need skills in reserve to do their jobs, more skill than is required to do their job most of the time.

And so I think the primary barrier we face is that we're in the midst of a very profound change in the way we compete and that we, as a nation that was so good, the past master of the old economy, are having difficulty shifting to the next one. And our education and training institutions—that fit quite well in the old economy—no longer fit at all, I would argue.

A couple of other barriers I think that are reasonably clear; one is that for a very long time, really since the Great Depression, Americans were used to the notion that people are in oversupply. And it is still one law of economics that most of us still agree to

that when things are in oversupply they generally are regarded as cheap and we don't pay much attention to them.

Demography is changing on us. What was once in oversupply is now scarce and more valuable. And that is especially the case in our 16- to 24-year-old population group, where the numbers of people are declining and, what's worse, where a higher and higher proportion of the people in that age group are coming from populations in whom our prior investments are woefully inadequate and they are simply not prepared to take the jobs that are available to them at higher and higher skill requirements.

Those being, I think, at least in terms of the more profound barriers to change in the American system, the two most significant ones.

And then there are the smaller barriers: in order to do these things on the public side, I think we do require money and there's no money in the till. On the public side of the equation as well, we have built a system that focuses almost exclusively on those last in line, America's disadvantaged and disenfranchised.

And there is an open issue here for the Congress and other State institutions as to whether we will move into concern about the skill preparation of the vast majority of Americans who are not disadvantaged or dislocated workers, and we make that decision at a time when there's little enough money to do anything for those who are last in line.

I think those barriers are there. I think in many, many cases they are being worked on with some success. We have a crazy quilt of successes and failures out there.

And if there's one thing I think we could do that is reasonably cheap and it would do us some advantage is we could begin to make more of the successes. That is, we can begin to find best practices and show them to others. That is essentially an R&D or a dissemination function, it's reasonably cheap, something I think in the short haul we can afford to do.

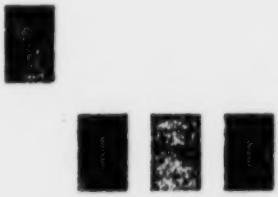
I would argue that that R&D needs to be done more in the area of workplace learning than in education. We're already doing $130 to $150 million in research on teaching in school rooms; we're doing virtually nothing in terms of trying to maintain and push the state of the art on the training of adults or of disadvantaged workers in the workplace or in public programs.

Thank you.

[The following article was attached to Mr. Carnevale's statement:]

The Learning Enterprise

By Anthony P. Carnevale



The Learning Enterprise: an Introduction

Three years ago we published the first comprehensive national data on the size, scope, and importance of work-related learning activities in the United States. We labelled that large but shadowy system the learning enterprise.

Since then, the idea of workplace learning has come out of the shadows to take a prominent place in the thinking of business leaders, educators, and Congress. Although there is still no national policy on human resources, there is much more awareness that the nation must do something deliberate and dramatic about the learning potential of its workforce.

We believe it is a critical time to update our picture of the learning enterprise. What we see most clearly is that even though the country spends billions on learning activities, it doesn't spend enough. Even though every third person in the United States is a student or trainee, not enough work-related learning is taking place. As a nation we aren't yet using our learning enterprise to prepare everyone to participate fully in the economy.

A word about our numbers. We believe, quite simply, that they are the most comprehensive available. Our research, conducted over the last two years in conjunction with the U.S. Department of Labor, draws on data from dozens of sources, including the 1987 U.S. Census Bureau survey of participation in adult education.

We emphasize the quality of our data and its scope and reliability to make the point that this is no shot in the dark. We feel confident in calling for a greater commitment to training and development because we know for sure how much is being done.

Patricia A. Galagan
Editor

Here are the highlights of the most comprehensive survey of training ever published, ASTD's two-year study on work-related training in the United States. Research reveals who gets trained, who does the training, and how much training takes place in different industries.

The nation's learning enterprise is a large and often invisible industry that brings learning to people throughout their lives. The size of that enterprise has been, until recently, mostly a matter of conjecture. Pictures of pieces of the enterprise, such as formal education and public job training, are sharp and clear; they've been tracked for decades. But other pieces, especially the learning that employers provide, have gone on quietly, in effective obscurity. Little effort has been made to look into the shadows and measure the whole learning enterprise.

One thing is certain: the learning enterprise is enormous. Formal learning, of all kinds, occupies about 77 million people annually and costs as much as $404 billion. In 1988, almost one in every three Americans was a student or a trainee.

You may be surprised to learn that employers deliver learning to more people than does the entire U.S. higher-education system. See Table 1 for a breakdown of how learning expenditures are divided among various providers including schools, employers, and the government, and how many people each enrolls.

The learning enterprise serves many masters. In a nation that values individualism and a political system that demands participation, public schools try to teach people to think independently. To support the nation's security, the Department of Defense engages in training and education. And to give a "second chance" to displaced or disadvantaged people, the government provides public job training.

Carnevale is the chief economist and vice president for national affairs at the American Society for Training & Development. This article summarizes part of the research done under a two-year project of the American Society for Training & Development and the U.S. Department of Labor. More comprehensive coverage of the topic appears in the publication, The Learning Enterprise, *available from ASTD by calling Janet Campbell at (703)683-8122.*

How learning fills the purse

The learning enterprise has two important economic uses: it leverages what an individual may earn, and it improves institutional performance. Job-related learning is key in getting and keeping a job. And a job is the price of admission to our individualistic and participatory national culture. Those unable to get and keep a job eventually disappear from community life, drop out of the political system, and fall into the underground economy. Moreover, only totalitarian nations have managed to be both first-rate military powers and second-rate economies.

The link between skills and opportunity for individual Americans is powerful and growing. Skills influence lifestyle, the kind of work one does, and where one does it. Skills affect what one earns. On average, about half of the change in what a person earns (the difference between the lowest and highest salaries in a person's working life) will be determined by learning in

Table 1

Annual Expenditures and Enrollments

Institutions	Expenditures (in billions of dollars)
Elementary & Secondary Schools	$157
Higher Education	$95
Military	$18
Employer	$30
Federal Programs	$4

school and on the job. The other half will be determined by a mix of chance, opportunity, chosen career, and location. A person may trade earning power for a preferred location, occupation, or employer, but people with poor skills do not have much to bargain with. Their choices will be limited and their earnings low.

Most studies show that, among Americans, 10 percent of the differences in earnings over a lifetime can be attributed to pre-employment learning in school. But that small figure masks big differences in the importance of education in determining earning potential. For instance, education is more important in determining earnings in high-tech industries than elsewhere. In high-tech industries, the earnings of a high-school graduate are twice those of a dropout; earnings of a college graduate are twice those of a high-school graduate; and earnings of someone with a postgraduate education are 50 percent higher than those of a college graduate.

In high-tech industries, education is a particularly good investment because it prepares employees for the highly skilled jobs those industries generate, and because it produces adaptable employees who can cope with rapid technical change.

Education also improves earnings because it leverages further learning on the job. Skills learned in school and skills learned on the job are complementary. For instance, compared with persons who have only high school diplomas, those with two years of formal education beyond high school have a 20 percent greater chance of getting training on the job. College graduates have a 50 percent greater chance of getting training on the job than high-school graduates. And in most American industries, workers with education beyond four years of college have a 30 percent greater chance of getting training on the job than college graduates. In high-tech industries, postgraduate education increases the probability of receiving training on the job by almost twice as much as a college degree.

People with poor skills do not have much to bargain with. Their choices will be limited and their earnings low

Although educational attainment certainly influences earnings, learning on the job has the most powerful and substantial effect on earnings. Studies by Lillard and Tan, Bishop, and others consistently show that people who receive formal training on the job enjoy an earnings advantage of 25 percent or more over those who do not receive formal training in the workplace.

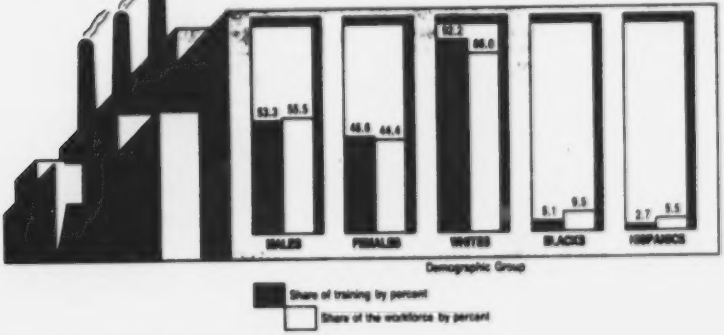
Training in the workplace has effects on productivity and earnings beyond the current job. Most people, after all, use what they learn on their current jobs to get new and better jobs. According to Lillard and Tan, employees who have had some formal training at a prior job earn 18 percent more in their current job than those who have not. Those who have had informal training at a prior job earn 20 percent more than those who have not.

Workplace training also seems to have a more durable influence on earnings than education and training from other sources. The positive effect of workplace learning on earnings lasts 14 years, compared with 8 years in the case of learning in schools.

How training affects earnings depends on the subject matter as well as the provider. Management training and professional and technical training

Table 2

Formal Training By Sex and Race of Trainee



Source: U.S. Census Bureau (1987). *Survey of Participation in Adult Education*. Washington, DC: U.S. Government Printing Office.

41

increase earnings more than other kinds of training (16 percent and 14 percent more, respectively).

Skills and competitiveness

Education and training are critical not only to individual opportunity, but to the productivity and competitive advantage of companies and the whole nation. Learning in school and learning on the job are by far the most important factors behind American economic growth and productivity in this century, and will determine the nation's economic prospects in the next. In fact, both formal education and learning on the job have been consistently more important than machine capital in expanding the nation's productive capacity throughout this century. Between 1929 and 1982, education prior to work was responsible for 26 percent of the expansion in the nation's productive capacity. Learning on the job contributed more than half, about 55 percent, of all improvements in the nation's productive capacity. Machine capital contributed a respectable but disappointing 20 percent.

Further, the economic importance of learning on the job is increasing. The economic history of the modern world shows acquired human skills inexorably replacing natural and machine resources as the basic building blocks of production and service. In 1890, resources from the earth, including minerals, energy, and food, accounted for 50 percent of the gross national product. Today, those resources account for less than 10 percent of production and services. In contrast, human resources now account for more than 80 percent of the nation's total economic output. The acquired skills and abilities of the population have become the pivotal resource.

In the last century, economists routinely listed land, labor, and capital as the factors essential for economic production, but in the post-industrial economy, land is no longer a prime factor of production. Available data suggest that land played no part in the productivity increases between 1948 and 1966 and had a negative impact on productivity between 1966 and 1978.

In today's world economy, high-skilled, technology-intensive production and services are concentrated in developed nations, and low-skilled, technology-poor production and services are concentrated in less-developed nations. The competitive advantage of the less-developed nations lies with their low-wage, low-skilled labor pool. The competitive advantage of developed nations lies in the application of technological advances in combination with an increasingly skilled and adaptable work force.

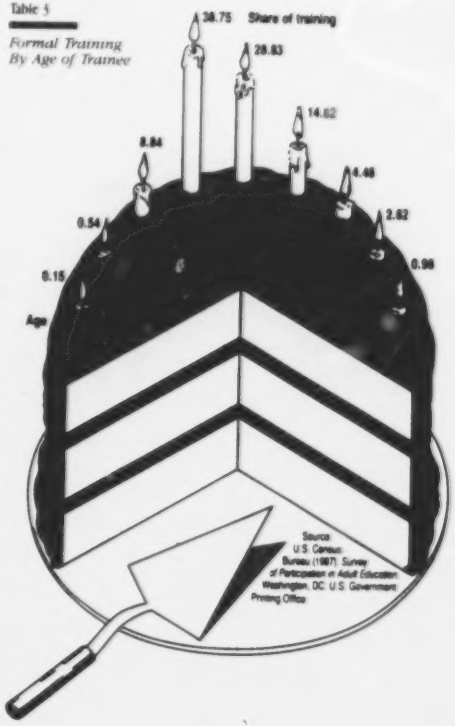
As the baby boom moves toward retirement and birth rates stay low or decline, the United States will find it increasingly difficult to match sweat equity with the millions of new workers who will come of age over the next quarter-century in underdeveloped nations. Consequently, the nation can no longer compete on the basis of low-wage/low-skill production, but must shift to a service- and information-based economy in which highly skilled people and large doses of technology are the critical factors of production.

A closer look at workplace learning

Learning on the job is nothing new. Most people learn their jobs on the job. Most get ahead by leveraging what they learn in the current job into a new and better job. Moreover, for many people, a job is the best teacher. Relatively few people excel in academic settings, but almost everyone is able to learn on the

Table 5

Formal Training By Age of Trainee



job, either by doing the job, by being coached by peers or bosses, or by attending formal courses provided by the employer. Applied learning, done in the context of a task, has inherent advantages as a pedagogy for both employers and employees. Applied learning is, by nature, more flexible than the academic format. Individuals can learn at their own paces on the job. Applied learning encourages the learner to use, rather than lose, new knowledge. Finally, individuals are motivated to learn on the job because increased proficiency brings immediate rewards, in terms of achievement, status, and earnings.

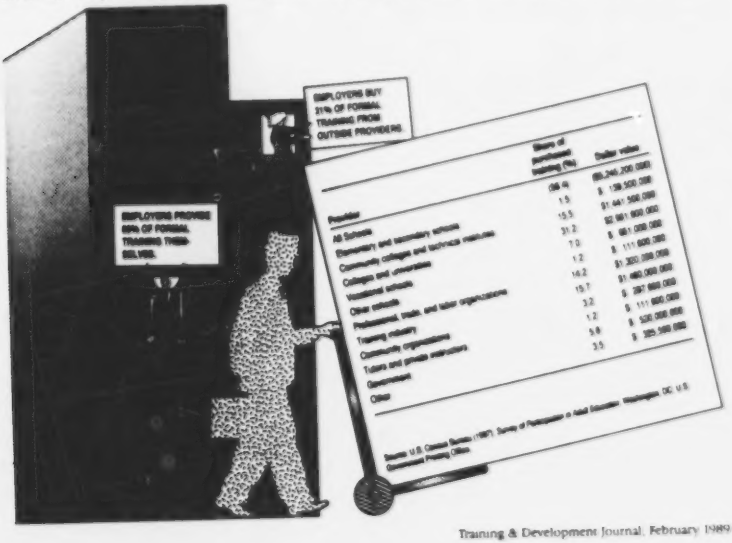
The employer's interest in learning tailored for the workplace, in contrast to more general academic preparation, stems from the fact that on-the-job learning directly supports the employer's institutional culture and strategic goals. Such training occurs in the context of the employee's working team, encouraging efficiency in the work group. In addition, employer-based training occurs in the context of the employer's strategy, products, and market niche, thereby encouraging new efficiencies, quality improvements, and innovations.

The national interest in employer-based training stems from the fact that learning systems in the workplace are the first line of defense against economic and technical changes. The ability of the nation's employers and employees to respond expeditiously to such changes largely determines how adaptable and competitive the nation will be.

Although employees have always learned on the job, the training process has changed substantially with a consistent shift from informal toward formal learning. As the pace of economic and technical change has accelerated in the last half century, employers have tried to ensure the efficiency and quality of learning by formalizing learning processes. Employers have managed to maintain the link between learning and real jobs by applying a careful methodology that translates real-world learning needs into structured learning programs. That methodology, called "instructional systems design," is an applied approach to learning. The strength of the applied approach is that it strays as little as possible from the workaday reality of the job and the employee. It begins with a careful analysis of the gap between job requirements and the employee's skills, and ends with an evaluation of the employee's performance on the job.

Employer-based training is not lacking in importance, size, or scope, but it lacks cohesiveness and presence and is largely invisible as an education system. This shadow system is delivered by no single institution, is the subject of no law or policy, and functions quietly and efficiently, growing invisibly, a silent postscript to the employee's formal education. Even now, executives, managers, supervisors, and others train without the direction or assistance of training professionals.

Most people delivering employer-based training do not recognize that they are part of a training system. They see themselves as managers, engineers, marketers, chemists, or sales managers, for example. They tend to be rewarded and recognized by their peers on the basis of their professional expertise, rather than their ability to train and develop employees. Only recently has


EMPLOYERS BUY 21% OF FORMAL TRAINING FROM OUTSIDE PROVIDERS
EMPLOYERS PROVIDE 69% OF FORMAL TRAINING THEMSELVES.
Share of purchased training (%)
Dollar value
All Schools
Elementary and secondary schools
Community colleges and technical institutes
Colleges and universities
Vocational schools
Other schools
Professional, trade, and labor organizations
Training industry
Community organizations
Tutors and private instructors
Government
Other
Source: U.S. Census Bureau (1987). Survey of Participation in Adult Education. Washington, DC: U.S. Government Printing Office.

training taken its place as an institutional function and professional discipline in the consciousness of business leaders, in business-school curriculums, in the business press, and in the thinking of theorists, economists, and politicians.

The current organization and delivery of learning in the workplace reflects its roots at the worksite. Most learning on the job is still located as close as possible to the job itself. Even in large institutions, training departments tend to supply less than half of the formal training and development that employees receive. But there are exceptions to that rule. Training intended to provide skills beyond the current job tends to be centralized at the corporate or divisional level. Companies also centralize developmental programs for certain occupations—such as scientists, engineers, and executives—and the developmental aspects of the training of senior managers.

Some kinds of training and development are centralized because they are new. A new product, strategy, or technology may require training large groups of employees as quickly and consistently as possible. So employers tend to provide centrally controlled training in the first stages of innovations. Once innovations are in place, training becomes decentralized to fit the specific purposes of divisions and individual job categories. Some training is organized around specific institutional purposes, product lines, or strategies. The training of sales, marketing, and customer service personnel, for instance, tends to be organized around specific products or strategic units at the division level.

How much training and who gets it

How do the nation's employers apportion their training investment? Employers spend about $30 billion a year in direct costs for formal training courses that they provide themselves or buy from outside suppliers. The current average expenditure is about 1 percent of payroll, but expenditures of 2 percent of payroll are not uncommon. Expenditures of 3 and 4 percent of payroll are more rare, but not uncommon among training-intensive employers.

Women receive a disproportionately large share of formal training, although

Table 5

Formal Employer-Based Training By Industry, 1984

Industry	Share of total training (%)	Training intensity (hours/employee)
Agriculture	0.7	0.2
Mining	1.0	1.0
Construction	2.2	0.4
Manufacturing	18.7	0.9
Lumber	0.3	0.4
Furniture	0.2	0.3
Stone, clay, glass products	0.4	0.5
Primary metals	0.5	0.5
Fabricated metal products	0.9	0.7
Machinery, except electrical	4.2	1.7
Electrical machinery	3.2	1.5
Motor vehicles	1.4	1.3
Aircraft	0.8	1.4
Other transportation	0.9	0.4
Instruments, toys	1.0	0.9
Food	0.9	0.5
Tobacco	0.1	1.0
Textiles	0.2	0.2
Apparel	0.1	0.04
Paper	0.3	0.5
Printing	0.7	0.4
Chemicals	1.7	1.0
Petroleum	0.2	1.3
Rubber, plastics, leather	0.7	0.7
Transportation, communications, utilities	7.8	1.1
Transportation	2.4	0.7
Communications	2.8	1.8
Utilities	2.8	2.0
Trade	9.5	0.4
Wholesale	2.9	0.7
Retail	5.8	0.3
Finance, insurance, real estate	9.4	1.8
Banking, finance	5.2	1.8
Insurance, real estate	4.2	1.2
Private household services	0.1	0.1
Services (miscellaneous)	41.3	1.4
Business	2.7	0.7
Repair	0.7	0.5
Personal	1.1	0.4
Entertainment, recreational	0.4	0.4
Medical, except hospital	5.7	1.0
Hospital	10.9	2.7
Welfare, religious	2.8	1.3
Educational	10.8	1.4
Other professional	6.0	2.1
Forestry, fishery	0.2	1.3
Public administration	0.7	2.1

Source: Calculated from U.S. Census Bureau (1987). Survey of Participation in Adult Education. Washington, DC: U.S. Government Printing Office.

51

4 4

it is less than men receive. Whites receive a disproportionately large share compared with blacks and Hispanics (see Table 2). Most formal employer-based training—68 percent—is provided to employees between the ages of 25 and 44 (Table 3).

Employers provide 69 percent of their formal training themselves and buy 31 percent of their formal training from outside providers. Table 4 outlines the relative importance of the various outside providers.

How extensively formal employer-based training is used varies significantly by industry (Table 5). Industries that use formal training the most are those with high concentrations of the personnel who can benefit the most from such training—managers, professionals, technicians, and sales personnel. Regulation and certification requirements typical of industries such as mining and health care also encourage formal training.

Small vs. large

Small employers operate in relatively small markets and, therefore, have jobs characterized by broad assignments of responsibility. Technologies also are less specialized than in larger businesses. The lack of specialization makes both the employees and the employers flexible and provides a generalized learning experience that aids in career transitions. At the same time, small employers do not have enough employees to afford the time away from work that is required for training during working hours. As a result, employees in small businesses get less training than employees in larger businesses, and the training they receive is more concentrated in informal categories.

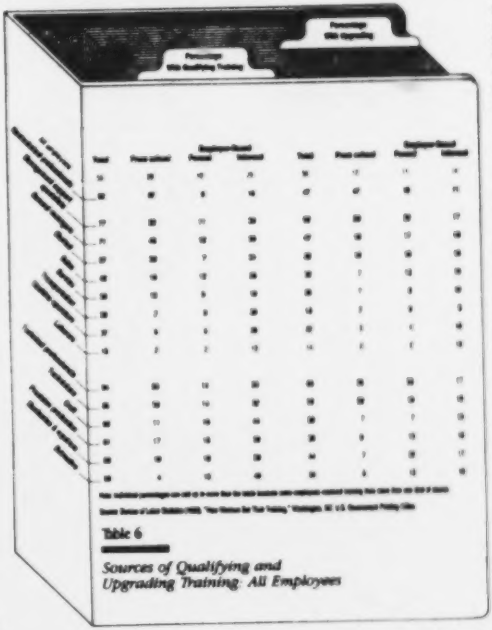


Table 6

Sources of Qualifying and Upgrading Training: All Employees

According to a survey by the U.S. Small Business Administration, almost half of employees in companies with 500 or more employees received some kind of training from their current or former employers. By comparison, only 27 percent of employees in companies with fewer than 25 employees received any kind of training from current or former employers. A study by John Bishop showed that employers with more than 500 employees provided almost three times as much formal training in the first three months of employment as firms with fewer than 500 employees. People who work for small employers get their training off the job. Data from SBA show that in firms with fewer than 100 employees, 75 percent of employees who receive training are trained off the job, compared to 58 percent of employees in larger firms.

Large employers also tend to pay for more of the employee training done outside the workplace. Data indicate that employers with fewer than 100 workers pay for 23 percent of training done outside the workplace, while employers with more than 100 workers pay for 32 percent of that training.

The importance of occupation

Training also varies by occupation. Technical professionals are the most highly trained group, followed by non-technical professionals, technicians, management support specialists (such as accounting managers and personnel managers), general managers, mechanics and repairers, precision production workers, and craft workers (see Table 6). In those occupational categories, 61 percent to 94 percent of employees get training to qualify for their jobs, and 26 percent to 63 percent are upgraded once they are on the job.

Among clerical workers, sales employees, and extractive workers (such as miners and oil workers), roughly 50 percent get qualifying training and 33 percent receive upgrading. The least educated and trained employees are machine operators, service workers, transportation workers, and laborers. In those categories, 18 percent to 37 percent of employees have qualifying training and 14 percent to 25 percent receive upgrading.

Table 6 reveals many of the general characteristics of job-related training in the United States.

■ Preparation to qualify for a job is more common than upgrading once on the job. While 55 percent of Americans report some qualifying training, only 35 percent report any upgrading once on the job.

■ Qualifying training more often involves formal education and informal learning on the job than formal learning on the job. Of those employees who received qualifying training, 29 percent got some or all of the training from schools, 10 percent got some or all of the training from formal courses provided by their employers, and 26 percent got some or all of their qualifying training from informal coaching on the job.

■ For upgrading, the three sources of training are of more nearly equal importance. Of employees who received upgrading after they were on the job, 12 percent said they got some or all of it from schools, 11 percent from formal training on the job, and 14 percent from informal training on the job.

■ Employer-based training—formal and informal combined—is a more important source of qualifying training and upgrading than is schooling. Moreover, employers pay for a substantial share of job-related education. Among Americans who used education to qualify for their jobs, about 8 percent had their courses paid for by employers; employers paid for the courses of 41 percent of those who used education for upgrading.

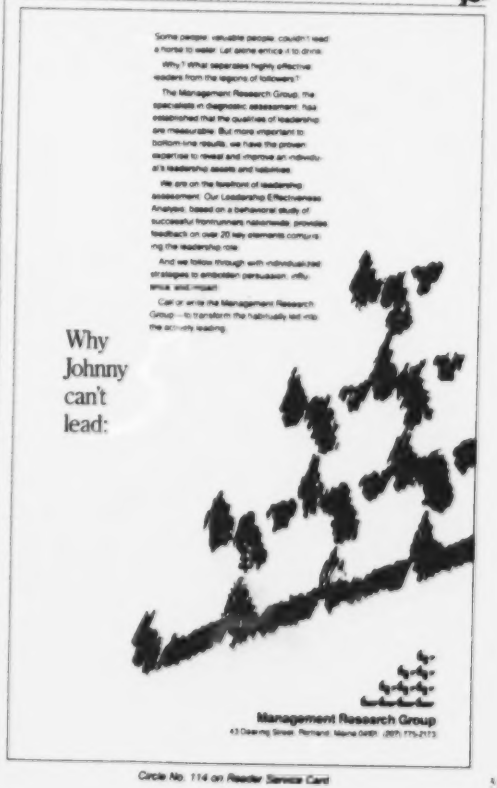
Still not enough

When one looks at the scope of job-related education and training in the United States it is clear that there is not enough of it. Only 55 percent of Americans have preparation for their jobs, and only 35 percent receive any upgrading once they are on the job. Data about training also shows that human capital in the United States is unevenly distributed among demographic groups, among industries, and among large and small employers.

It is difficult to know how much job-related learning is enough or what is the proper distribution. But it is more and more clear that the ability of the nation's learning enterprise to achieve its economic mission will be tested over the next several decades. A growing and mutually reinforcing mix of economic, technical, and demographic factors is bringing human capital to the forefront of national concern.

Employers increasingly depend on the skills of all their employees for improvements in efficiency, quality, and customer service, and for the development of new applications for existing products and services. The increasing reliance on human capital in the workplace is on a collision course with the emerging demographic reality: the United States' the quantity of human resources available for entry-level jobs is declining. Moreover, the quality of entry-level employees is declining as more and more young workers are drawn from populations unprepared for work.

The United States may be facing a growing human-capital deficit that threatens our competitiveness, our ability to provide work for every able-bodied citizen, and the nation's security. The size and quality of the learning enterprise will be decisive in our ability to meet and master the challenge.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Representative SCHEUER [presiding]. Mr. Hirschhorn, please proceed.

STATEMENT OF LARRY HIRSCHHORN, SENIOR RESEARCH MANAGER, WHARTON CENTER FOR APPLIED RESEARCH

Mr. HIRSCHHORN. I'd like to talk to some of the issues that Congressman Scheuer has raised of what's in the way. We know a lot, but what's in the way?

To give you an example from my remarks, think of a factory in which there are some assemblers who are assembling circuits, primarily women. On the other side of the wall are some engineers who are designing these circuits. The assemblers get the information on assembling from blueprints that lie in baskets on bins. What's happening in that little microworld?

Well, what's happening fundamentally is that the rate of change in the circuit design is much, much faster now and people who used to rely on the foremen to tell them what to do or who just could operate from memory on how to put something together are not able to do so. Instead, they have to start to read the blueprints and to figure out how to translate from reading into hand work.

Surprisingly enough, this is a dilemma. We didn't realize what the obstacles were and how unprepared people were in these basic skills. It's not just that they have to learn to read and write but the uses of reading and writing and numeracy were less than we imagined in the old industrial world that Mr. Carnevale was describing, because there were many other ways to succeed.

Ironically enough, as we get to a computerized world, that's when we have to realize the deficits we have in the basic skills—which is interesting to me, I hadn't anticipated that.

Now that's a context. You can also see in that setting that the need for communication between engineers and supervisors, engineers and workers, grows.

For example, in the setting I just described, they are going to be putting in some computers that will link the two groups, which means that an engineer will do a circuit drawing on the computer and transmit that instantaneously to the assembler. Changes will come more quickly and also communication between the two groups will grow.

If they can grow. Because I think we're discovering there are very significant educational, class, and cultural barriers that separate those two groups.

Now that's a context I want to think concretely about. We've heard everyone say that this world creates a need for more problemsolving ability, the basic skills, thinking more holistically, taking a systems view. What's difficult about achieving that?

I think we're talking not just about an education problem, I think we're talking about a cultural problem and a cultural crisis and I want to show that at several levels.

First, we are talking about the paraprofessionalization of the work force. This means that people who had occupational identities that they associated with vocational training, blue collar life, are inadequately psychologically and culturally prepared to operate in a paraprofessional environment. And this is more than just simply

giving more programs, it involves some restructuring of family life and school life to get people oriented so that they can take up different kinds of roles.

We've seen in many settings where very educated—actually well-trained workers are still very shy and inhibited in communicating aggressively to engineers. That gets in the way of doing productive work. And engineers, of course, exhibit similar arrogance in relating to the people on the shop floor.

These are cultural barriers and class barriers and barriers that have to do with occupational identity, not just training and skills. I think that's one reason why it's so hard to get off the dime.

Second, to reinforce the comments that Mr. Carnevale just made, the issues of workplace learning are embedded in workplace design. That is, the way in which people learn at the workplace is not through just formal training programs. More importantly, it's through what kind of work they do. Do they get feedback on their performance?

When they learn certain skills like examining data for variances in production, what happens with what they see? If they tell a foreman that they've noticed a variance, is there any result; do they see consequences for that?

I've seen many programs in factories that begin teaching statistical skills to workers, statistical process control, but these skills are lost as quickly as they are acquired. The problem is not that they can't acquire them, it is that they're not reinforced. They're not embedded in a work practice. They're not embedded in relationships between the supervisors, the engineers, and the workers. This is a cultural question.

We've learned a lot about how to design work settings to promote learning and give incentives for learning. Why don't these practices diffuse more, as Mr. Carnevale said? It's a cultural question.

But is management prepared to actually give up some of its unilateral power to take the risks entailed in involving people more in various decision processes at work? I'm not so sure. I'm saying that's a kind of deeper question than simply skills.

I interviewed, for example, a worker just last week, a woman in her fifties who went through a very rigorous statistical process control program a couple of years ago. When I interviewed her about what she had learned in the last few years, she never mentioned that program at all because it had simply been unreinforced, it meant nothing in the context of her actual work practice. So that's a barrier at a cultural level.

Third, I think we've touched on the fundamental issues of basic education. I'm not expert in the area, but I do know just from living in Philadelphia that behind all these questions is this question of racism, the question of do young black children 4 to 5 years old feel that they're really being given a place in America?

I can't imagine that, short of a cultural renewal that creates a more multiracial climate, I can't imagine any program is succeeding in convincing them that it's worth making the effort. There's just too many day-by-day instances that tell them that it's not worth making the effort.

So it seems to me we're talking about not just skills and training and education in the narrow programmatic sense in which we discuss these things, but we're talking about some broader cultural questions. And I'll just reiterate them just to make them clear:

We're talking about a new concept of professionalism and paraprofessionalism in the work force which challenges educational, cultural, and class distinctions which have shaped the way in which people experience work in the workplace. That's one very important thing to remember.

And I've seen this to be a problem even among very educated shop floor workers, technicians, mechanics, et cetera. The difficulty they have engaging more broadly in problemsolving is not just a question of their cognitive abilities; it's a context.

Second of all, we know that for learning and training to be reinforced at work it has to be built into the workplace design. This is a question for management. It's a question of the culture of management and their willingness to take the risks entailed in involving people on the shop floor and in getting engineers to get down to the shop floor to start to work together. This is a question for management and, again, it's a cultural question.

And third, the question of skills for people of color, minorities, black people, I firmly believe is the deepest cultural question and relates to the broadest problem of whether or not we can construct a multiracial society.

And short of addressing these questions at the cultural level, I'm afraid we're going to be a little too technocratic and programmatic about these things and find ourselves to be quite disappointed in the results.

[The following report was attached to Mr. Hirschhorn's statement:]

Training and Technology in Context: A Study of Four Companies

Submitted to the Office of Technology Assessment
by

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EXECUTIVE SUMMARY

The following report is based on an exploratory study of the technical training divisions of three manufacturing firms, and one company that produces and sells training services. Based on the initial hypothesis that new technologies and market conditions are reshaping the skills workers need, and the workers employers want, the report explores this hypothesis and examines how training professionals are responding to new problems and opportunities they consequently face. The following tables presents basic data and information on the firms examined here.

Firms in Study *

Firm	Product	Revenues	Employees	Technical Training Staff
Engine, Inc	Industrial Engines	$570	27,000	70
Control, Inc.	Control Systems	$660	10,000	25
Elevator, Inc.	Elevators and Repair	1,9000	43,000	250
Training, Inc.	Training Programs	70	1000	50

* The numbers here are estimates of revenues and employees for the flagship operations of the first three companies, based on both public financial reports and estimates provided by company personnel. The training staff numbers include technical trainers only and exclude personnel involved in management and supervisory training. Estimates for Training, Inc. are for the company as a whole.

Table II

Training Division Activities

Firm	Activities
Engine, Inc.	Runs vocational school for its apprentices, trains entry level operators on basic skills, develops courses for manufacturing engineers, trains parts-planners (who create flow charts for the movement of parts through a particular production sequence), creates videodiscs with the help of outside vendors.
Control, Inc.	Trains operators on basic skills, both in machining and assembling circuits, develops and conducts courses for its engineers on new control systems.
Elevator, Inc.	Participates in industry-union consortium, produces technical training materials to update technicians and installers, manages a system of headquarters staff, regional trainers and training volunteers who come from the line side of the house.
Training, Inc.	Sells problem solving training course for supervisors and operators in manufacturing settings. Also conducts special training audits and provides consulting on training services. Is currently developing new products, e.g. a training course on internal innovation.

The report is organized into seven sections. The first section examines the contextual forces that are reshaping the demand for training, the second examines how these contextual changes specifically reshape skill structures, the third shows how workers' changing characteristics are changing their skills, attitudes and expectations, the fourth assesses how trainers are responding to these different changes, the fifth highlights the limits of training as a instrument of organizational change and skill formation, the sixth summarizes the key findings of the study and the seventh assesses the policy implications of these findings.

Fourteen Hypotheses

The following fourteen hypotheses present the key conclusions of the study. As hypotheses, they are presented to help guide further study on the links between training, the new technologies, and emerging market conditions.

1. The modernization of manufacturing sets the stage for the transformation of training. Managers modernize factories to meet global competition by upgrading quality, increasing the variety of goods they produce, and becoming more responsive to changing customer demands.

2. To modernize, managers undertake two critical steps. They invest in automated systems and machines and they rationalize the flow of materials, so that the the rhythms of continuous and sustained flow of materials and parts begins to replace the job shop character of production. In industries that work with metals and solids, this entails a major reorganization of the work process. At Engine, Inc. this means replacing a functional layout based on machine types with a product layout based on the similarities between parts. At the same time the machines themselves become more multifunctional as automation and the microprocessor enable a single machine to perform many functions.

3. Offices and service settings face similar challenges and pressures. For example, facing the challenge of competition and changing technologies the call center at Elevator, Inc. had to more systematically use its data base, train its receptionists to understand elevators, and is currently organizing them into regional units.

4. The need for manual and craft skills declines, though skilled mechanics are still engaged in the hand/brain directed production of new tools and parts. But workers need three new meta-skills; they must have better basic reading and numeracy skills, they must be able to think more abstractly by examining relationships, functions and contexts rather than objects and situations, and they must take a polyvalent or holistic role as they do their work.

5. The basic skills become more important as the rate of technical change makes "hand-me down" knowledge obsolete and workers must read instructions and prints to know what to do. Abstract knowledge becomes more important as workers monitor electronically governed machines, and are called upon to monitor production trends, solve problems and communicate with engineers. For example, the elevator mechanics at Elevator, Inc. can no longer simply see and touch faulty gears and wheels to assess and repair a malfunction. Instead they have to understand the more abstract logic of circuits and controls. Polyvalence and holism emerge as the new technologies integrate design and manufacturing, the drafting room and the shop floor, so that workers, managers and engineers, must have a deeper understanding of one another's roles.

6. Skill profiles and training are affected by the qualifications of the workers, the culture of careers, and the recalibration of the links between internal job ladders and educational background. Where technical colleges are linked to industry, factories can obtain the skilled workmen who have associates degrees to repair and maintain electronic and electro-mechanical machinery. They face more obstacles and must invest more resources in developing the engineering talent they need at the top and the shop floor talent they need at the bottom. Needing polyvalent engineers, that is, engineers conversant with the different disciplines and specialities that shape the manufacturing process, factory managers must develop a new training

system to retrain and upgrade their current engineering staff, while at the same time linking these engineers more completely with the designers who create new products and process. Similarly, operators working at the shop floor have weak basic reading and arithmetic skills. This can create obstacles to factory modernization since reading becomes more important as instructions and blueprints replace hand-me down knowledge, and arithmetic becomes important as operators are asked to assess trends and deviations in the quality of the output.

7. Educational qualification and continuous training may reduce the significance of seniority in shaping internal careers within a company. Thus, at Engine, Inc. an increasing proportion of the parts planners come from four year colleges rather from the shop floor, the salesmen for Elevator, Inc. come out of college rather than the field,at the Elevator, Inc. call center, an increasing number of receptionists are going to college, the maintenance technicians at Control, Inc. have two-year associate degrees, and the engineers at Control, Inc. are now taking company sponsored courses to become familiar with the new technologies of control.

8. Operators enter the shop floor with a new relationship to authority. They want to know why they must do something rather than just do what they are told, and they are less willing to work at the same job or machine for a large part of their work lives. They want a piece of the action and want to put themselves into the picture. Managers and supervisors remain ambivalent about this emerging culture

of authority. Wanting to tap worker knowledge and win their cooperation in rationalizing the shop floor they encourage participation, but fearful of the chaos that might result, they may tighten controls if workers show too much initiative. It seems that first line supervisors and foremen come to express management's ambivalence, often feeling that training restricts their ability to get the product out the door. Finally, though workers want to participate, they may lack the basic skill and the problem solving skills to make themselves effective. This suggests that training's function is not only to enable workers to solve problems but to provide workers and managers with a shared framework or language for communicating with one another about problems, so that the anxieties and discomfort associated with communicating between levels is reduced.

9. As a result of changes in technology, labor supply, and skill profiles the training function is being upgraded and is being progressively linked into business unit planning. Trainers who once lived in an organizational ghetto isolated both from one another, the shop floor and upper management, now have increasingly public and valued roles and are expected to contribute to the profitability and integrity of the manufacturing operation. As training's role is more visibly linked to the business units, trainers themselves need no longer come up from the shop floor but can come from a range of professions and disciplines. While expanding the opportunities open to non-technical professionals and diversifying the skill base in training divisions, this development may also block the upward

mobility of trainers who, though lacking education, have "shop smarts."

10. As technologies change rapidly, the training department must develop methods for delivering "just in time training" that balances the needs to help workers master a new technology without training them too far in advance so that their skills decay because they have no new machines to work with.

11. To accomplish its more valued mission, trainers are increasingly using interactive videodisc technology. Such programs mix video segments with computer screens and questions, are structured to provide immediate feedback to students, and enable the student to return to old segments or move forward to new ones at will. Interactive videoprovides good returns on investment when trainees are dispersed and are large in number. Moreover, since each student can go at his or her own pace, average training time per student can fall by as much as fifty percent. In the longer run, training with interactive video will be delivered through video stations adjacent to the shop floor. Supervisors, often reluctant to release groups of workers for training, will find it easier to release one worker at a time at frequent intervals to master a particular skill or review a particular product.

12. There are nonetheless limits to training's ability to improve worker competence and skills. As machine systems are automated, workers need to deepen and accelerate their learnings from experience, since they most frequently take action in novel or unexpected situations. Work designs that help integrate working and learning, such as the application of Statistical Process Control, Just in Time production systems, group technologies, and the development of semi-autonomous teams, can help workers focus their attention on anomalies, and understand the production process as a whole. Moreover, such new work designs also reorganize the working relationships between managers, supervisors, operators and engineers. To implement such designs managers must change plant culture.

13. Underemphasizing learning, and confusing learning with training, managers often neglect the links between work designs and learning while sometimes hoping that training can resolve work design and relationship problems on the shop floor. They alternatively undervalue or overvalue training.

14. Working as staff personnel with a limited budget, training professionals cannot single-handedly link work designs to learning. Instead, they must work closely with those managers interested in transforming plant process and culture.

POLICY IMPLICATIONS

This study highlights four possible avenues for policy training related to education and economy.

1. The problem of adult illiteracy and people's deficits in basic skills may emerge as an obstacle to economic development. Ironically, the development and application of high technology systems stresses the workforce's underdeveloped basic skills not its presumed inability to work at high-tech professions. Reading, interpreting, and problem solving, become extremely important when informal methods of training and work organization give way to more formal ones.

2. The shift to abstract and conceptual skills rather than manual and situational skills, might lead educators to expand their concept of basic education. This study suggests that methods of thinking and relating may become more important than the skilled performance of a particular task since the latter changes with technology. Four methods may emerge as key:

   a. Problem solving using the classical methods of scientific reasoning, that is, discovery by induction based on hypothesis testing and the use of disconfirming evidence.

   b. statistical reasoning to assess the meaning of trends variances, probabilities and frequencies

c. systems thinking to assess the links between a problem and its context, and a role and its setting

d. the old but continued importance of thinking in shapes and geometries, and visualizing three dimensions.

3. The importance of two-year colleges, the obsolescence of particular manual skills, the relatively poor preparation of students who go to vocational schools, indeed, the absence as Hoachlander points out, of any critical difference in the courses taken by vocational and non-vocational students, suggest that at least in the U.S. the vocational high schools cannot be expected to play a critical role in reshaping technical education. We seem to be developing instead a deeper adult education system both outside and within companies in which adults, faced with career opportunities or blocks, actively and freely choose to learn skills. This suggests that high school should emphasize a general education. But to prepare the new operators they should focus increasingly on basic skills and core methods rather than on particular skills or simply the casual smattering of course work that often shapes curriculums today.

4. Government procurement policy can shape training activities. While currently government agents audit training departments, procuring avenues in the future might consider rewarding contractors who use job designs as learning and training mechanisms. SPC not only improves quality, it also enables operators to learn when and why amanufacturing process fails. Other "learning at work" designs, such as QC circles, team systems and "pay for knowledge" compensation schemes might be rewarded.

5. In developing a policy of training and retraining we should no longer use the image of the "displaced worker" as the framework for policy thinking. Increasingly, the employed, as well as the unemployed, must be retrained, and policy should focus not only on those left out and left behind but also on the mainstream companies and educational institutions that will shape the post-industrial adult education systems. In particular, we need to evaluate the links between the high schools, the community colleges, the technical colleges, the vocational schools, the training departments, and the training companies to see if their relationships best serve our retraining needs. What planning and coordination mechanisms should be developed to more effectively integrate their different efforts? How can we allow these institutions to operate within a spirit of entrepreneurship while at the same time assuring that their separate efforts add up to a coherent set of national initiatives?

Representative SCHEUER. Thank you very much, Mr. Hirschhorn. And now, Mr. Noyelle.

STATEMENT OF THIERRY NOYELLE, ASSOCIATE DIRECTOR, CONSERVATION OF HUMAN RESOURCES, COLUMBIA UNIVERSITY

Mr. NOYELLE. Thank you, Congressman Scheuer.

Let me begin by pointing out that today over 83 million Americans, or nearly 77 percent of this country's labor force, are employed in the services. And that, according to the Bureau of Economic Analysis' most recent estimates, well over 100 billion dollar's worth of services will be exported this year by U.S. service firms contributing to a service trade surplus that may reach as high as $30 billion.

Service exports have grown very fast and will continue to grow very fast in the years to come. Despite the mounting evidence of the importance of services in the U.S. economy, both in the domestic economy and in global markets, we pay only scant attention to the changes going on in the U.S. service sector.

It's a pity, because I think we run the risk of drawing inferences about the way in which the workplace is being transformed in the United States which are overly biased toward what's happening in the manufacturing sector and not always necessarily relevant to some of the problems that service employers must face.

Taking a look at the service sector—which is what I was asked to do for the purpose of this hearing—shows that those sectors have come under the grip of the same basic forces of change that have affected most other sectors of the U.S. economy during the seventies and eighties; namely, an intensification of competition and very rapid technological change.

What I have chosen to do in my prepared statement is to focus on two sectors of the services; namely, consumer banking and retailing. Those are sectors that are typically seen as comprising mostly low-skilled jobs with very little room or very little opportunity or very little need for upscaling, upgrading, and transformation.

The record of what's happening in those sectors shows quite otherwise; that those are sectors that also are undergoing tremendous transformation with very fundamental implications for the type of work force that they employ.

Consumer banking and retail are sectors which, during the late seventies and eighties, for reasons of their own, have been subject to renewed competition. This has come about partly as a result of market saturation—I mean, saturation of traditional markets, and partly as a result of new entrants coming into the marketplace.

New competition has translated into enormous diversification of firms' product offerings. In banks, as one banker once put it, we've gone from 6 basic consumer banking products to over 100 today. Consumer credit cards have multiplied; we have all kinds of new ways of giving out loans to consumers; there are new forms of savings—savings instruments have changed, developed partly as a result of the tremendous explosion of the IRA's and the Keogh's; we've invented the variable rate mortgage and so forth.

In the retailing sector, just to give one example of a similar sort of burst of diversity, the Food Marketing Institute estimates that the average supermarket today carries twice more items on its shelves than it did simply 10 years ago. The average supermarket 10 years ago carried about 12,000 items; today it's up to 24,000 items or what the industry calls the SKU's, the stock keeping units.

Combined with diversity, such sectors as banking and retail have been affected by a very rapid introduction of computerized systems, with a tremendous impact on the way in which work gets carried out and in terms of the skill emphasis that is now demanded from workers in the workplace.

If I were to summarize the changes that have occurred in both types of service workplaces, the first thing that has occurred is that computerized systems have come in to take over and automate most of the routine functions that were once the basic nexus of the work of clerks, be they service clerks in stores and other retail organizations, or bank clerks in consumer banking.

In the process, there has been a displacement of skills. There is increasing pressure on clerks to come in and assist customers increasingly in customer-assistance positions and also in sales positions.

I think the nature of that transformation must be most familiar to you. Every so often you must go to your local bank, and you, as well as I, have noticed that there's been a sharp shift in emphasis in our local consumer banks from what used to be the teller side of the bank to what is called the platform side.

The number of tellers in banks has shrunk, in part because automated teller machines have allowed a substitution of capital for labor. But the platform functions, those across the counter from the tellers, have expanded.

Consumers can now go to the bank branch and ask for assistance on how to invest their savings, on how to borrow money at a rate which is advantageous, given their particular financial positions, and so forth.

Combined with this transformation of skills at the lower clerical levels, there has been a transformation of skills at the managerial level—especially at the middle-level managerial level. What we find across the service industries is again a very similar transformation.

With the diffusion of these computerized systems, many of the sort of recordkeeping, managerial tasks that were once associated with managerial jobs in bank branches, supermarkets, and department stores have been reduced, simplified, and largely automated.

What firms, however, are discovering is that managers must play an increasingly important role in managing the firm's human resources. The middle-level manager is emerging as the human resource manager of the corporation, with a very fundamental role to play in the training of the workers and in the preparation of the labor force.

This is happening because, at least among the most progressive firms, there is an increasing understanding that improving productivity and improving quality of service—the two pillars of a firm's

competitiveness—are not purely technical issues but, fundamentally, human resources issues.

Now let me try to draw one or two policy implications. It's clear from what we've looked at in some of our research that the progressive firms are out there and really trying to change the way in which they are managing human resources and to change the emphasis of the training effort.

What's not clear, however, is how much these new efforts by the lead firms really carry over to other firms throughout the rest of the economy.

The second issue which is not clear is whether or not there might be biases in the way in which even those lead firms tend to focus their renewed training efforts on particular groups of workers. Do they, for instance, tend to discriminate among various gender or racial groups? Or do they perhaps tend to increasingly focus their training on what are called their core employees, while they only pay scant attention to the training of the increasingly large number of part-time workers, temporary workers, self-employed workers which they are hiring?

I suspect that taking a more detailed look at what the service companies are doing would probably show that there's a great deal of unevenness——

Senator GORE [presiding]. Mr. Noyelle, we're going to need to move on, if you could come to a conclusion.

Mr. NOYELLE. I would suggest that we have to deal, in some of the firm-based training efforts, with both an issue of diffusion—how fast is firm-based training diffusing throughout the rest of the economy—and an issue of distribution—how well is firm-based training distributed among various groups in the labor force.

In this respect, I would suggest that this committee do some investigating into some of the policies that have been adopted by some of our competitors; namely, in Sweden and France. These countries have instituted policies whereby it is a legal requirement for firms to invest a minimum amount of money—typically a percentage ranging from 1 to 1.5 percent of wages and salary—into the annual training of their workers.

If those funds are not expended, they're turned over to the state in the form of a tax which then gets reinvested into other training programs carried out by the public sector.

These policies, I think, have shown to have invigorated the training efforts of firms, not only large firms which are often best positioned to do it, but others throughout the economy.

I would also suggest that if we start thinking about a solution in that direction we would also need to have some kind of a requirement that firms can show that the training funds are expended fairly and equally across the entire labor force of the company. If it is the case that firm-based training is taking on a new importance in the 1990's, then we must be concerned that that effort be distributed equally so that no one gets left behind in the labor force.

Excuse me for taking a little too long.

[The prepared statement of Mr. Noyelle follows:]

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PREPARED STATEMENT OF THIERRY NOYELLE

**SKILL NEEDS IN THE SERVICE SECTOR:
THE ROLE OF FIRM-BASED TRAINING.**

Today over 83 million Americans, or nearly 77 percent of this country's laborforce, are employed in the services. According to the Bureau of Economic Analysis most recent estimates, well over $100 billions worth of services will be exported this year (exclusive of factor payments), contributing to a service trade surplus that may reach as high as $30 billions for the whole of 1989. Service exports have grown at a fast 15 percent per annum rate of increase since 1986. They will likely continue to grow as fast in the years ahead, possibly even faster, particularly if a GATT Agreement on Trade in Services is reached at the end of 1991.

Despite mounting evidence of the growing importance of U.S. services, not only in the domestic economy, but in global markets as well, so far only scant attention has been paid to ongoing changes in the U.S. service workplace. A review of what is happening in the service sector suggests, however, that service firms have come under the grip of the same two basic forces of change that has affected most other economic sectors during the 1980s: namely, the intensification of competition and rapid technological change. And as in other sectors of the economy, these forces of change have had fundamental implications for the skill needs and skill formation needs of service employers.

Mr. Chairman, I work for Conservation of Human Resources, a 40 plus some years old research department of Columbia University in New York City. Conservation of Human Resources is one of the

very few academic research institution in this country with a steady track record of research on the U.S. service sector, going back, in our case, to the mid 1960s. Since the mid 1980s, as part of our ongoing work on the services, we have focused considerable attention on analyzing the impact of renewed competition and rapid technological change on jobs across a broad range of service sectors. These include retailing, banking, insurance, telecommunications, health and medical services, government services, and business services such as accounting, management consulting, computer software and others.[1] Most of our work has been carried out with funding from the U.S. Department of Labor, the U.S. Department of Education, the Ford Foundation and the O.E.C.D. With respect to the latter institution, it might be useful if I mention that my work for the OECD has demanded that I research ongoing changes in the service sector, not only the United States, but in other countries as well, including France, Japan, Germany and Sweden.

Mr. Chairman, I believe that we have learned many valuable lessons from our recent research on the services, many of which are of direct relevance to some of the questions raised at the

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[1]. See for example, Thierry Noyelle, Beyond Industrial Dualism: Market and Job Segmentation in the New Economy, Boulder, Col.: Westview Press 1987; Thomas M. Stanback Jr., Computerization and the Transformation of Employment: Government, Hospitals and Universities, Boulder, Col.: Westview Press, 1987; Olivier Bertrand and Thierry Noyelle, Human Resources and Corporate Strategy: Technological Change in Banks and Insurance Companies in Five O.E.C.D. Countries, Paris: OECD Press, 1988; Thierry Noyelle, editor, Skills, Wages and Productivity in the Services, A report to the OECD, 1989.

outset of these hearings. To share with you and your committee some of these lessons, I will first attempt to illustrate, through a few concrete examples, changes that are occurring in two services sectors: consumer banking and retailing. These two sectors have been selected because they continue to be viewed as large employers of low-skilled labor, with few opportunities or needs for skill changes and skill upgrading. My examples, I hope, will help contradict such a notion and will show sectors in the midst of continuing, rapid transformation. I will then try to draw some policy lessons. My emphasis throughout my presentation will be on firms' response to the new skill needs in the form of firm-based training.

New Skills in Two Service Sectors

Consumer Banking.

The most recent wave of transformation in U.S. consumer banking goes back to the late 1970s.

Until then, the banks' main strategy for expanding their consumer banking business involved finding new customers for what was then a rather limited range of "plain-vanilla" products: simple checking, passbook savings, and so on. Carrying out this strategy involved mostly the building of a large distribution network of branches through which a growing clientele could be served. In the branches, platform clerks were added to fill out the forms necessary to open the new accounts and large numbers of

new tellers were hired to carry out the ever growing demand for withdrawal and deposit transactions. In the home office, back-office clerks were added to process transactions.

By the late 1970s however, this phase of market expansion peaked, as the percentage of households and individuals with traditional checking and savings account reached near saturation.

Saturation of traditional markets resulted in a sharp intensification of competition, as firms increasingly vied for the same customers. Helped by deregulation, the response to market saturation came in the form of product diversification and "cross-selling". Banks' growth strategy shifted from "quantitative" -- that is from simply building up the size of their customer base -- to "qualitative" -- that is to developing new consumer banking business by widening the range of products and services that they offered to an existing base of customers. As one banker once put it to me, consumer banking went from "six basic consumer banking product 15 years ago to over 100 today." Credit card products went from relatively insignificant 15 years ago to become a huge market today; savings accounts became tied in a myriad different ways to regular checking accounts; savings product multiplied, helped in part by the development of IRA and KEOGH accounts; variable rate mortgages were introduced as were home equity credit lines; and so on.

In all of this, of course, new computerized technologies have come handy as they have helped bankers reorganize production processes, revamp old products, develop new ones and, in the end,

compete better.

New competition, new technology and product diversification are factors that have all helped transform profoundly the skill needs of consumer banking.

First, through increasing automation of traditional data entry and processing tasks, banks have been able to do away with most of their needs for lower-level clerical personnel. The few remaining data-entry needs have been passed on to other workers throughout the organization or simply to customers themselves through Automated Teller Machines, home banking and similar systems.

Paralleling this transformation, remaining clerical personnel in both back- and front-offices has increasingly been called upon to work in either or both customer assistance or sales positions. In the branches, this situation is illustrated by the rapid growth of "platform personnel", relative to tellers whose numbers have tended to drop. But whereas bank platform personnel was once employed mostly in "order-taking" positions, filling out and processing forms needed to open new accounts, today's platform staff is here primarily to solve problems outside the range of those that are solved automatically by computers, to assist customers in deciding what to do with their money, and eventually to assist the bank in selling its products. In the back offices, the same transformation has taken place, as witnessed by the growing number of back-office personnel employed in staffing "hot-lines" where, by definition, non-routine

questions or transactions are handled.

In terms of skill preparation, this shift in skill needs has translated in both a shift in recruiting patterns and an increase in in-house training by banks among middle level clerical personnel. At least among the largest banks, there is an attempt by firms to recruit directly from the college-educated labor market (at a minimum, from the two-year college labor market) to staff the new clerical/customer support positions. In addition, banks have increased considerably their firm-based training in two principal directions: (1) product knowledge and (2) behavioral skills. Banks are now spending large amount of resources in training clerical employees in the knowledge of the products that they need to explain and sale to customers. This, of course, is taking place in a context in which the number of new products never seem to stop growing. In addition, banks are spending large resources on developing their employees' situational skills: how to address a customer, how to deal with an angry customer without loosing one's patience and calm, how to sale.

In terms of their managerial personnel, banks have had to accommodate three shifts: (1) a growing need for specialists; (2) a growing need for operating managers with a strong entrepreneurship bend; and, (3) a growing need for managers with much stronger human resources management skills.

The need for specialists, ranging from systems engineers and systems analysts required to develop the new computer systems, to

product developers and market research specialists needed to develop new products, and to, yet, others, complement rather than replace the need for operating managers. However, in an industry that had long pride itself for promoting from within, this need has forced firms to turn increasingly to outside recruitment, mostly at the four-year college or above level, to find a growing number of these new professionals. As for operating managers, many banks have also come to the conclusion that the old "internal promotion" system was not sufficient to staff managerial positions and have increasingly turn to the college labor market to staff junior managerial positions.

Complementing this shift in hiring practices, banks have turned their attention to strengthening the skills of their managerial labor force. As for lower level employees, more resources are now devoted to training managers in product knowledge. Some attempts are also being made to strengthen operating managers' entrepreneurial bend, mostly by involving them much more directly than in the past in the banks' on-going process of new business development. In addition, more resources are spent on assisting managers in their role as human resources managers, since it is perceived that improved productivity and improve quality of service depends not only on better or newer systems, but also on a better management of people.

Retailing

Retailing is of major importance in the American labor market. Not only is it one of the largest employment sector, accounting for 17 percent of all nonagricultural jobs in 1987, but it is the largest employer of youth (47 percent of 16-19 year old workers in 1987) and also a major employer of women and minority workers.

There is a widely-held view that retailing is a largely unprogressive and unproductive sector of the American economy. Yet, as in the case of banking, our research provides a quite different picture. The industry, as a whole, is rapidly being moved through a combination of renewed competition and new technology to a new set of merchandising practices, new organizational structures, and new employment recruitment, promotional and training practices that are altering significantly its characteristics.

Before turning to the issue of skill changes, let me first illustrate the context within which some of these changes have occurred. In the area of general merchandising, prior to the 1960s the traditional department store and a few department store chains dominated this segment of American retailing. The large department store, a long-established, highly-popular downtown institution thrived in the early days of burgeoning suburbanization by establishing outlying branches, as did the few existing chains -- Sears, J.C. Penney and Montgomery Ward -- which also grew rapidly by adding look-alike branches.

Beginning in the 1960s, however, the discount department store chains took off. By the late 1960s, their sales had surpassed those of traditional department stores. Their sales and market share continued to grow throughout the 1970s, but by the early 1980s, they began stabilizing. The reasons lie in part in the failure or slow growth of a number of discounters. They lie also in the emergence of the specialty chains. Largely a product of the 1980s, the specialty chains have by now cut aggressively into the business of both traditional and discount department stores. The Limited, The Gap, Esprit, Toys "R" Us, Kiddie City, Circuit City, Home Depot are a few among some of the most successful specialty chains that have emerged during the 1980s, respectively in fields as varied as apparel, toys, consumer electronics, or maintenance and repair hardware.

The specialty chains incorporate strategies that emphasize the deployment of large numbers of nearly identical stores coupled with heavy centralization of merchandising, buying and advertising functions. Within their product line, they offer a much wider range of goods than is possible for either the discount or the traditional department store chains. They operate with razor-thin margins and at prices which are often competitive even with those of the discount department stores.

As with general merchandising, food retailing has also been witnessed to major changes during the 1980s.

The modern supermarket concept -- low prices, self-service, and cash-and-carry policy -- was introduced during the 1930s and

quickly gained popularity. During the 1950s and 1960s, supermarkets burgeoned along with suburbanization and increased automobile ownership. Beginning in the 1970s, various organizations started experimenting with new store formats. Some chains started experimenting with larger scale stores and with using better their economic muscle to exert stronger leverage on suppliers. All tried to effect greater scale economies through more effective warehousing and distribution.

During the 1980s, service and specialty departments (delicatessen, flowers, pharmacies, fish counter, etc) have increasingly been added to the supermarket, contributing to the rapid growth in the number and diversity of products offered. The Food Marketing Institute estimates that, between 1979 and 1989, the number of items carried by the average supermarket doubled from 12,000 SKUs (of "Stock Keeping Units") to 24,000 SKUs. More importantly, during the 1980s, the supermarket industry has become increasingly segmented into two major groups of firms: those emphasizing low prices and those emphasizing quality foods and services, partly at the expense of price. The first segment is giving rise to new types of retailers, employing new strategies to bring down costs and attract customers -- for example, hypermarkets and warehouse clubs. The second has moved into upscale supermarkets and broader product lines (Ralph's Grocery in the Los Angeles area, Food Emporium in the New York area, Giant Food in the Washington D.C. area, and so on).

Successful retail organization of significant size have come

to rely heavily on computerized systems to support buying, inventory control, pricing and reordering functions at the level of headquarters, distribution centers and individual stores. Distribution is now synchronized with both reordering from the stores and purchasing from the suppliers. Store stockroom inventories have been sharply reduced, if not virtually eliminated, so that most large retailing organizations nowadays operate with a "just-in-time" delivery system. Vendors are rapidly being integrated into the firm "quick response" computerized system, receiving reordering information as needed.

At the lower echelons of the retail organization, the widening diversity of products, the intensification of competition, the increasing attention to customer service as a means to compete have all combined to place new skill demands on store personnel, including more extensive training in (1) product knowledge and more training in (2) service behaviors. Product training ranges broadly from that required by salesclerks in a department store, say, to assist customers in mixing garments and colors according to current fashion or to inform clients in the proper upkeep of new garments, to that needed by supermarket clerks as they may be asked to advise on how to best prepare a particular cut of meat or fish, or even that needed by supermarket baggers who must be taught how to best bag the customer's groceries.

Paralleling product training, retailing organizations are also placing a new emphasis on training their sales personnel for

service behaviors, ranging from proper dress code, to "role-playing" training in the handling of difficult customer and other crisis situations.

At the level of store management, store managers have been relieved of many of their traditional responsibilities involving oversight of inventories, purchasing decisions and so forth, thanks to the new computerized systems. On the other hand, their role in managing and training the store's human resources has increased considerably, in line with the understanding that a store's capacity in continuously improving its productivity and the quality of its service -- in other words, its competitiveness -- lies increasingly in the quality of its human resources.

Further up the hierarchy, the increasing emphasis on store specialization has led to a great deal of centralization of merchandising decisions at headquarters. It is there that high level managers specialized in buying, marketing, advertising and other functions assume a wide range of responsibilities in defining and promoting the firm's unique corporate image, to be carried through consistent operation of virtually identical stores throughout the entire organization.

One disturbing finding from our research on the retail sector, one which is similar to that revealed by our research on banking, is the tendency for the most successful organizations to become increasingly demanding in terms of whom they hire and employ, especially at the lower echelons. Such finding suggests that the role that some of these largest service organizations

once played in providing avenues for remedial training for the least skilled is dwindling, as competitive pressures make it increasingly difficult for them to write off or pass along to consumers the costs of such investment.

Likewise among middle level and upper level managers in the retail sector, there is growing evidence, at least in the largest organization, that the opportunity for internal mobility for those with less than a college education are shrinking, in part because the new managerial responsibilities are seen as more demanding than in the past.

Policy Implications.

Hopefully, these two examples will have helped illustrate the fact that, even in two areas of the services that have traditionally been seen as relatively low-skill, there are new pressures to upskill the workforce. As in other sectors of the economy, these pressures are being met by firms partly through a reassessment of whom they hire and at what level, but partly also through an upgrading of firm-based training efforts.

Of course, I do not mean to trivialize the issue. How successfully firms meet the new needs for work-place training remains somewhat questionable. First, most of the case study material, from which my observations on skill transformation are drawn, comes from analyses of "lead" firms in each sector. While lead firms are at the cutting-edge of change in their sector,

their adoption of new managerial practices tells us little about the speed at which some of the new training practices are diffusing among other firms in those industries.

Second, even in the case of the lead firms, there remains some questions as to how well the new training effort is being distributed among workers in those firms. For example, do lead firms tend to discriminate by gender or by race? Or do they tend to discriminate by employment status, focusing their new training efforts principally on their "core" employees, while giving only minimal training attention to the growing numbers of part-time employees, temporary workers, self-employed consultants and other "contingent" workers that they employ? While limited evidence from our case study work would seem to suggest that lead firms do not discriminate along either one of these two dimensions -- because they see consistency in the quality of their labor force as their ultimate competitive weapon -- we are in no position to generalize this finding. To the contrary, the few available aggregate data might suggest otherwise.

In 1983, the Bureau of Labor Statistics conducted a special survey of "How Workers Get their Training". Notwithstanding the fact that this survey is in dire need of being updated, the survey shed new light on the growing importance of firm-based training and on its distribution among the labor force. The survey observed the growing importance of <u>skill-improvement training</u> (training needed to improve current job skills -- mostly firm-based training) relative to <u>qualification training</u> (training

needed to acquire current job -- mostly school-based training). The survey also observed that women and minority groups had improved their access to qualification training relative to white men, reflecting a sharp improvement in those groups educational attainment relative to white men. But the survey also observed that women and minority groups lagged in their access to skill-improvement training (mostly firm-based training), suggesting biases in the way in which firms distribute their training efforts.[2]

There is no doubt in my mind that finding a way to address through public policy the issues of diffusion and distribution of firm-based training could serve some broad and important objectives of both economic competitiveness and social development. As I have suggested in my opening remarks, even services will come under increasing global competition during the 1990s.

In this respect then, I find it useful to look at several of the policies that have been adopted by some of our competitors to promote firm-based training. In Sweden and France, for example, firms are required, by law, to spend a minimum amount of corporate resources on firm-based training: typically between one and one and a half percent of total wages and salaries. If they do not, these resources are turned over to the State in the form

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[2]. See Nevzer Stacey and Duc-Le To, "Adult Education and Training Markets", in Skills, Wages and Productivity in the Services, op.cit.

of a tax that is used to finance other educational and training programs managed by the public sector.

Needless to add that such policies have served as rather powerful incentives for firms to invest in their human resources. For it takes little time for firms to discover that once one is stuck having to spend money on training, one might as well do its best to spend it as wisely as possible. In addition, such policies have come at little or no cost to the public sector

In my view, the implications of the introduction of a similar policy in this country deserved being debated. But in my opinion, also, a similar policy for this country would need to be coupled with a requirement that firm-based training resources be distributed fairly among all, regardless of gender, race or labor force status. For if it is true that firm-based training is growing to become an important dimension of workers' individual development, then a concern as to whom will benefit from such training must be central to the new policy. Short of this, this nation's concern for equal employment opportunity, one that has been written in its laws for over 20 years now, will gradually erode.

Senator GORE. Thank you very much, Mr. Noyelle.

Our final witness on this panel is Mr. Badi Foster, president of the Aetna Institute for Corporate Education. Mr. Foster, please proceed.

STATEMENT OF BADI G. FOSTER, PRESIDENT, AETNA INSTITUTE FOR CORPORATE EDUCATION, AETNA LIFE & CASUALTY CO.

Mr. FOSTER. Thank you, Senator Gore. I'm glad to be here. And Congressman Scheuer, it's good to see you again. After 2 years I feel like I'm back in church or temple or mosque or whatever. I'm going to try to move through rather quickly.

I've been spending the last 2 years back in the trenches. Aetna has about 45,000 employees; we handle about 27,000 students a year, offering everything from basic skills to management education. So it's nice to know that the folks back in Washington are beginning to hang a lantern on this problem.

Very quickly, I agree with almost everything that's been said. I would just underscore a couple of things.

First is the point on positive self-esteem. If you don't like yourself, I don't care what kind of training you receive, you're not going to be very successful. So we need to reflect on these questions of who are you and how do you feel about yourself because that goes to the very heart of this notion of managing change in your job. If you are what you do, then who are you when you cease to do what you do? Most people find it difficult to manage that. Given the rapidity of change in the workplace, increasing positive self-esteem is critical to successfully managing in such an environment.

Second is obviously learning to learn. We don't do that very well in elementary, secondary, or postsecondary education. We should spend a lot more time on learning to learn.

I'm willing to bet that 10 years from now the big eight firms, when they do an audit to see whether a firm is bankrupt or insolvent—the first indicator is going to be the intellectual bankruptcy of that organization. That at the very top of the organization they've stopped thinking. From there it won't be long before those managers make lousy decisions about human beings, which eventually leads to collapse.

So some attention needs to be focused on the quality of intellectual capital in that organization and how do you measure that and reward it and nurture it?

Education and training is more than a one-act drama. You used the term "crisis" in the hearings. The etymology of crisis is separation. The point is that initially we can bridge such a gap but then the crisis reappears.

So that education and training has to be more than a one-act drama. Unfortunately, the way we tend to think about it is a one-act drama or a vaccination. It comes back to learning to learn.

We have a problem with short-term thinking. Let me illustrate. I'm in the insurance business. People loan me money by buying my stock, in return for my making a promise to perform in the future under certain circumstances.

When they loan me the money, they want 15 percent or 18 percent or some acceptable return on their investment. Those include

the retired schoolteachers and the pension funds. I have to perform, otherwise they're going to take their money someplace else.

Well, if everybody wants 15 percent and they want it quarter by quarter, it's awfully difficult to explain to the person that loaned me the money that I'm going to have to invest some money in my employee's education and training and maybe I can only return you 14 percent. Nationwide we have to reach a point of saying we're willing to sacrifice 1 percent for the greater good of developing American workers.

Now, I'm an African-American. I was born on the south side of Chicago and educated in segregated schools. I couldn't agree more, I believe in the oneness of mankind. But in terms of productivity, in terms of justice, in terms of political participation, until we come to the issue of accepting people for their differences and judging them by the content of their character, until we do that we are going to have a very difficult time largely because the nature of the work we have today involves teamwork.

And if I can't find a way to connect with you because you happen to come from Tennessee or New York or whatever, an accident of birth, and that keeps getting in the way, I have a real problem.

I've just been honored to be appointed to the Governor's Commission on Integrated Education for the State of Connecticut; 90 percent of the people who are poor and of color are segregated into 16 towns. And I really don't know what we are going to do to try to overcome that. But I do know that if we don't do it, the State of Connecticut will suffer.

So what has Aetna's response been? I think this goes to the notion of how do you concretize these problems.

We've developed what we call an Aetna management process, which is a set of seven questions which may appear to be very simple but they're not simplistic. We are using these questions to try to change the way in which our managers think about the business. The first question is, why do you exist as a unit? What's your mission? In nickel and dime words, why are you here?

No. 2, if you can tell me your mission, tell me the four things that have to go right every single day for you to achieve that mission. Or, turn it on its head, if I wanted to destroy your mission, what are the first four things I'd do?

If you know those critical success factors, then how do you scan the environment to understand how that environment is having an impact on those factors, thereby creating a gap.

And once you've analyzed that gap, how do you close the gap? How do you set objectives, allocate your scarce resources and how do you monitor how well you are doing? Simple questions but not simplistic.

The point is that I can challenge a manager of a unit in 5 minutes to answer those questions. If that person hasn't mentioned work force 2000 or issues of diversity are having an impact on his critical success factors, I know that manager hasn't analyzed his business that well. And therefore I can come back and force him or her to concretize or to ground these issues of the work force into his or her business plan. And based on how well he does that, I'll compensate him or punish him.

Now, if we can get more organizations to do that kind of thinking, it's going to be a lot easier to find ways to connect the issues of this hearing to best practices. But most importantly, it will allow us to tell our managers that you must be leaders in two things: selecting and developing your people. Once managers know that is their obligation, it's going to make it a little easier to drive things down through the organization and to be sure that education and training does connect and it's not simply superficial.

As for directions in school reform perhaps out of the Charlottesville Summit something will happen. Hopefully, each State could do what Connecticut has done.

We have a common core of learning adopted by the State board of education that describes the expected outcomes of a high school education. No mystery. If you have those outcomes—and by the way those outcomes are precisely the things that we would like to have in new entrants to the work force—then in fact transform, restructure, do whatever you have to do according to those standards. If each State had that, I think we'd move along.

In terms of the role of higher education. We can spend another hour on this, but as a result of World War II the mission of higher education increasingly has drifted away from the issues that we're talking about. The people that you find in higher education who might be able to bring something to the table, they operate at the margins of those universities, for example, continuing education.

Somehow or another, through Federal leadership, if we can get higher education to refocus their energies on the constituents that they're serving, I think that would be helpful.

And I'm not pointing an accusatory finger, because there are always three fingers pointing back; we're all responsible. I understand that.

Certainly we need more money for urban eduation tied to the National Assessment of Educational Progress standards. That can be done.

As for R&D, you have a study being conducted by the Office of Technology Assessment. They're currently describing what other countries are doing so that you have some comparisons available. We need more of that.

You certainly need a clearinghouse for excellence and best practices. I think ASTD has demonstrated how you can do it. I wouldn't give the task to a university or to a trade association, but to some national center where in fact you can find best practices disseminated.

And then, of course, if you could find a way to get the accountants, the big eight firms, to create a category for measuring the investment in human capital, perhaps I could show that on the back page of the annual report, and tell the people who loaned me the money that I did invest it in people. That may lead to tax policy that would be helpful; that is, human resource accounting.

And I guess the last thing has to do with will and capacity. Two weeks ago I was invited down here to have breakfast, with two other businessmen, with Senators Kennedy, Mikulski, Durenberger, and Simon. We spent 2 hours around a table talking. That was the most encouraging discussion I have participated in a long time, because we were unencumbered by the formality of this proc-

ess but, more importantly, they were genuinely listening and they were saying that we have to connect with Senator Gore and with other people. I'm beginning to see at least in Congress some sort of coalescing in terms of the will and the capacity to address the issue. So I think that's the good news, and on that point I'll close.

[The prepared statement of Mr. Foster, together with an addendum, follows:]

PREPARED STATEMENT OF BADI G. FOSTER

Good morning, Mr. Chairman, and distinguished members of the Committee. I'm pleased to be here. I have been invited by Senator Gore to comment on human resource development in the service industry from the perspective of an educator working within a major corporation.

While I welcome the opportunity to present a corporate viewpoint, I should say that the views I express are my own, and do not necessarily reflect the official views of the Aetna Life and Casualty Company.

I am an educator by training, experience, and disposition. After several years as a university professor and administrator, I had the good fortune to participate in the creation of the Aetna Institute for Corporate Education-an institution, I am proud to say, that is now regarded as among the most successful organizations of its type in the private sector.

Briefly, the Institute offers over 150 courses and programs in executive, management, and supervisory education; general skills development; and information systems education. Each year, some

25,000 Aetna employees - more than one-half of our total workforce - take advantage of these offerings, either by participating in traditional classroom instruction in our Hartford home office facility, by pursuing self-paced education at their worksite, or by enrolling in a direct broadcast telecourse. In addition, the Institute administers the Company's employee tuition assistance and continuing professional education programs. Last year, nearly 8,000 employees took advantage of these opportunities. Finally, through special arrangements with a number of area colleges and universities, our home office employees can pursue studies leading to the General Equivalency Diploma, Associate and Bachelor of Arts Degrees, and the Masters Degree in Business Administration during evening hours at our facility.

I should note that the Institute is a corporate function. Each of our major operating divisions maintain their own education and training functions. They are responsible for career-related education in such areas as underwriting, marketing, claim settlement, and engineering. In total, the Aetna Life and Casualty invests about $45 million each year in formal employee development activities. This figure does not include the compensation paid to employees while they are

participating in these activities.

I would like to share some observations about the changing employee skill requirements in our industry. While these observations may not directly pertain to circumstances common to other U.S. industries, or even to smaller firms within the insurance/financial services industry, there are likely to be enough similarities to permit a meaningful degree of generalization.

Specifically, I will direct my comments to three areas that I think will be among the most crucial with respect to the viability and competitiveness of our industry. I will then suggest a number of expectations we might properly establish for each of our major education and training institutions, i.e. elementary and secondary education, colleges and universities, and the corporate sector. I will conclude with a small number of program and policy proposals that might help these institutions contribute in a more significant way to the resolution of the human resources development issues before us. I do not think we can talk about skill requirements without mentioning the adult literacy issue.

It is interesting how this problem has surfaced among the handful of top items on the social welfare and "human capital" agendas. We all know that it has been a "back burner" issue from sometime, so I think it would be instructive to very briefly consider why it has finally moved to the forefront.

I am sure the explanation lies, at least in part, in the very significant changes in the labor market that have occurred during this period of economic growth. Through I realize this prosperity has been somewhat uneven regionally, many areas of this country are experiencing virtual "full employment" situations.

In the late 1970's and early 1980's, the modest growth in the net demand for unskilled or semi-skilled workers was met largely by mature women who were either entering or re-entering the labor force. We never really recruited from the ranks of the so-called "marginal" or "contingent" labor force, which includes the less educated male adults and inexperienced youth. During this recovery, of course, companies like Aetna are recruiting from these very labor pools. And what we are finding in terms of "presenting

skills" has been discouraging, if not alarming. This is especially true of young adults from urban areas who as teens spent much of their time either unemployed or out of the labor force. In certain respects, I guess we are now reaping what we have sown; those of us who thought that the "youth unemployment problem' would disappear when the economy improved were clearly wrong. It has disappeared only in the ledgers of the statisticians who keep track of such things. It is all too apparent in the recruiting offices of major firms across America.

The second factor that helps to explain why the literacy issue has moved into currency is that the nature and scope of the problem is now being characterized in a way that can be readily understood. Here I am referring, for example, to the study by the National Assessment of Educational Progress on functional literacy skills among 19-25 year olds. I strongly urge those of you who have not yet reviewed the NAEP report, Literacy: Profiles of America's Young Adults, to do so. The study takes the relatively abstract concept "functional literacy" and operationalizes it in a meaningful way. Three dimensions of literacy are identified: document, prose, and quantitative. The scales used to measure an individual's level of

functioning along each of these dimensions are drawn from everyday experiences. When you note, for example, that 40 percent of the high school graduates in the sample could not correctly identify and/or accurately express the main idea in a newspaper article, you can not readily mistake the message.

So the problem is a very real one. It especially affects companies like Aetna where basic literacy is a requirement of competent performance in the vast majority of jobs. Our productivity is adversely affected and we must absorb the cost of remediation. Moreover, the individuals who lack these basic skills will have few real opportunities for advancement within the Company.

The second area where we are experiencing changing skill requirements is electronic data processing. This is an area that is of a great concern to those of us in the insurance and financial services industries.

The vast majority of the basic products and services marketed by the thousands of different insurance and financial services companies are, in essence, quite similar to one another. Add to that the fact that we all operate in the same regulatory environments. Given this

reality, some of us have chosen to differentiate our products on the basis of customer services. Two of the key ingredients of customer service are timeliness and accuracy: how quickly and accurately we can do such things as provide a quote, add an endorsement, respond to a claim, or answer a coverage or rate inquiry. All else equal, this translates into a question of how well we can build, run, and maintain our information systems.

The general trend in our industry is to move many data processing functions out of the home office computer centers, and into the field offices and agencies - closer to where the business itself is processed. This trend has a number of important implications for both the composition of the firm's workforce, and the characteristics of individual jobs. But I think that we must be very careful in assessing these implications. In particular, we must avoid oversimplifying the skill requirements attending these changes. For example, there is a very common tendency to overemphasize the technical skills associated with task performance, e.g. manipulating a computer keyboard, creating lines of code, using a given piece of applications software, etc. Clearly, these are much needed skills. But these are also skills that are relatively easy to develop through well

designed company training programs.

Far more worrisome are the skills and abilities that are not purely technical in nature. These requirements were very capably outlined in an article by Paul Adler that appeared in a recent edition of California Management Review. Referring to the changing features of clerical work in banks, Dr. Adler notes the following: (1.) the traditional importance of "responsibility for effort" is being replaced by "responsibility for results" - for the intergrity of the process; (2.) the relationship between tasks, and between tasks and goals is becoming increasingly abstract; and (3) components of complex systems are becoming more and more interdependent. The message here is that our clerical and administrative employees, as well as the "end-user", are going to have to be able to think critically, discern relationships, solve abstract problems, and communicate effectively. We are talking about abilities that are quite different than the kind of "computer literacy" skills that we often hear about.

While on the subject of so-called "high tech" skills, I think it is interesting to note that the central message of one of today's leading automation experts, James Martin, has more to do with people skills than technical skills. And the latest approaches to systems analysis

and design focus on the human rather than the technical side of the user/systems interface. The lesson here is that technical expertise is becoming a necessary, but not sufficient requisite to our ability to design, build, and maintain quality systems.

This notion of "people skills" leads to the third and final skill requirement I want to address here today.
There is a real need to upgrade the knowledge and skills of our supervisors and first-line managers. Let me suggest three reasons for this.

First, as our workforce becomes more diverse - not only in terms of ethnicity and gender, but also with respect to work related values and dispositions - the ability of our supervisors to accommodate the needs and orientations of their subordinates will be increasingly tested. But they will have to go beyond mere accommodation to full enlistment of employees' talents in the kinds of team-based work projects that will be much more common in the future. In addition, they will have to mediate the impact of technological change by managing the implications that I mentioned earlier. Truly competent supervisors have always been in short supply. My concern is that

without more systematic attention to the way we prepare supervisors and provide for their on-going development, they will become quite scarce.

In my judgement, we will be unable to adequately address the skill needs I've outlined here - and I have made no mention of requirements more common to other industries - without substantial improvements in the productivity of our education and training institutions. This includes elementary and secondary schools, colleges and universities, and corporate training departments. I believe this process ought to commence with efforts to identify a set of common expectations for these institutions and organizations, beginning with our public schools. We have started this process at the state and local level in Connecticut. Our "Common Core of Learning", drafted by a committee of distinguished leaders from across the state, sets out what our citizens can rightly expect of our students and schools with regard to demonstratable outcomes. The State Board of Education is challenging local school board members, parents, and concerned citizens to use the Common Core to promote and guide a new level of dialogue about education.

I should add that included among the expected outcomes identified in the common core are the basic literary skills as well as the kinds of reasoning, problem solving, and communication skills that I suggested will be so critical in the workplace of the future.

I think post-secondary institutions, for their part, can do more in the area of ensuring that their graduates are prepared to meet changing skill requirements, especially in the two areas I mentioned earlier: technology and human resources management. For example, community and four year colleges can begin to require that all students pursuing a major in the applied sciences or technologies complete course work in the humanities and social sciences. A number of institutions, ranging from Northwest Community College in Connecticut to the Massachusetts Institute of Technology, have already reorganized their distribution requirements to address this need. Others should follow their lead in this area.

Along the same lines, more institutions should review their business management curriculum. All such programs should include required coursework in technology, human relations, and human resources management.

There is one other area where I think our colleges and universities could make a greater contribution to human resources development. And perhaps this is an expectation that might pertain most directly to our state college and university systems. Many of our corporations are going to need help in their efforts to upgrade the skills of their workforces. Companies that lack the resources to support their own in-house programs are going to have to look to their local post-secondary institutions to provide the education and training their employees will need. Companies that are able to operate their own programs - and these are primarily, but not exclusively, our Fortune 1000 companies - are also going to have to look to these institutions for technical assistance in the areas of both training content and instructional method.

We have to ask ourselves whether corporate expectations are reasonable. If the answer is "yes", and I would submit that it is, the critical question is whether these institutions are really up to the challenge. It seems to me that many of these institutions have yet to come to terms with the fact that their market is changing in significant ways. I make this claim not on the basis of what I read in their promotional literature, but on the basis of how they are

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allocating their resources. More often than not, the entities responsible for professional and continuing education operate at the margins of the institution in terms of faculty qualifications, availability of student support services, financial aid, and so forth. I think a careful review of this matter by all relevant parties, including State Boards of Higher Education, would be well advised. Similarly, we need to take a careful look at the extent to which the information and expertise resident in these institutions is made available to the private sector. As it now stands, both the higher education "culture" and incentive systems work to inhibit this transfer. Faculty, for example, are rewarded for their ability to create new knowledge, not for their ability to synthesize and communicate this knowledge in a way that would be immediately applicable to those of us who are grappling with such matters as adult learning, instructional design, program evaluation, and organizational development. I think this need is too important to our common interest to be left to isolated entrepreneurial activity.

Thus far, I have identified areas where we are experiencing the greatest needs with regard to workforce skill requirements. I have also suggested a number of policy and program initiatives which, if

undertaken at the local and state levels, would help move us closer to addressing these needs. In the time remaining, I would like to outline a limited number of proposals for federal leadership.

First, I think it would be appropriate for the federal government to increase its support to those large urban school districts that are prepared to commit themselves to improving the basic literacy skills of their students. Such support should be contingent on the district's ability to identify target outcomes related to the kinds of functional skills that are found in the National Assessment of Education Progress study I mentioned earlier. The National Institute of Education's "Excellence in Education" activity could be expanded to accommodate this program.

The U.S. Department of Education could also do more to encourage innovation in curriculum design at the post-secondary level. In particular, they could provide special incentive grants - perhaps through The Fund for the Improvement of Post-Secondary Education - for institutions willing to integrate liberal arts subject matter into their technology curriculum, and technology and human relations subject matter into their business management curriculum.

Third, the U.S. Department of Education should create something

along the lines of a National Clearinghouse on Corporate Education and Training. At last count, we have nine educational research information clearinghouses, eleven national centers for excellence in education, and six regional education laboratories. But even though we spend at least as much on the education and training of adults in the workplace as we do in the education of children and young adults in our schools and colleges, we find the existing clearinghouses, centers, and laboratories largely unprepared to relate to the needs of the corporate sector. Perhaps a dedicated resource would help bring a more desirable balance to the system.

Fourth, the federal government should encourage, through the provision of seed money, state and regional initiatives that would increase the private sector's access to higher education resources, including their information and expertise. The model I have in mind would be similar to Pennsylvania's Ben Franklin Partnership, except that the mission would focus on human resources development rather than technology development. This entity would do two things. First, it would broker both technical assistance and existing educational courses and programs. Where necessary, it would also produce and deliver new courses and programs tailored to the needs

of our industries. Delivery would be patterned after the highly successful National Technical University - an organization that makes quality telecourses available to businesses on a 24 hour a day, seven day a week basis.

Finally, I think that Congress should seriously consider revisions to the tax code which would create greater incentives for companies to invest in employee education and training. One approach that is frequently mentioned in this regard would be the granting of tax credits to firms willing to increase their education and training expenditure over some base year. I realize that there is an issue as to whether this credit ought to apply to federal or state tax liability. My personal concern with implementing this approach entirely at the state level is that many firms that would stand to benefit most from the credit are located in states that, almost be definition, may be least able to forgo the revenue. This matter certainly deserves further study.

In any event, larger firms could use the retained funds to establish, among other things, adult literacy programs for their employees. I think this would be a very desirable outcome, since this type of education could probably be carried out much more efficiently by

private companies than by public adult education organizations. After all, one of the key tenets of adult learning theory is that the learner must perceive the personal relevance of instruction. Requirements associated with job performance and advancement would obviously provide this ingredient.

Smaller firms could either purchase education and training services from public providers, or where appropriate, from other companies. The services of the "electronic training network" I proposed would also be quite attractive here, since the unit cost of training would likely be low.

One very worthwhile by-product of increasing the amount of employee education and training funds "in circulation" is that it would probably bring about some needed reform in the system. As Marc Tucker and David Mundel of the Carnegie Forum have pointed out, colleges and universities would be elegible to provide services to companies taking advantage of the tax credit. But they would have to compete for the privilege with a longer roster of potential providers. Consequently, they would have to become both more efficient and more responsive to the needs of business.

In conclusion, let me say that I am optimistic about our collective ability to address the challenge of upgrading the skills of our workforce. And I find efforts - such as this important hearing - to more fully understand the issues, and more carefully explore the options, to be especially encouraging. Thank you for the opportunity to contribute to your important work.

ADDENDUM

TESTIMONY BEFORE THE JOINT ECONOMIC
COMMITTEE OF CONGRESS

OCTOBER 31, 1989

BY
BADI G. FOSTER, PRESIDENT
AETNA INSTITUTE FOR CORPORATE EDUCATION
AETNA LIFE & CASUALTY COMPANY

TASK FORCE ON WORKFORCE AND WORKPLACE READINESS

PRESENTATION TO THE
COMMITTEE ON LABOR AND HUMAN RESOURCES
UNITED STATES SENATE

BY
BADI G. FOSTER
PRESIDENT
AETNA INSTITUTE FOR CORPORATE EDUCATION

8:30 A.M.
OCTOBER 17, 1989

1) Entry Level Recruiting

The selection and placement of qualified applicants is a critical factor for success in business. But staff selection and placement at the Aetna and other U.S. financial service corporations is impeded by two disturbing external trends: the predicted drop in the number of entrants into the labor pool and their declining skill levels. Internally, the trends are equally disturbing: secretarial positions currently average 1.8 applicants per open position vs. 5 applicants a few years ago; during the past year, there has been a 27% drop in incoming applications; and for skilled administrative jobs such as those requiring typing and word processing, there are 44% fewer applicants.

In response to these trends, the Aetna has developed a comprehensive staffing initiative that provides Aetna management with the flexibility to respond to the diverse, changing needs of its workforce. Encompassing a host of programs that include alternate staffing options, the initiative's major emphasis is on recruiting and retention strategies that encourage training and development for both the current and future workforce. To that end, Aetna's Corporate Staffing Department has designed and implemented two training and employment models: one for adults and one for youth.

The key features of the Adult Model include an emphasis on hiring, training, and retaining non-traditional applicants from public and private community-based agencies; on helping the applicants successfully make the transition into the workplace; on working closely with the community-based agencies to draw from their expertise; on providing necessary technical, administrative, and human resource skills for unskilled applicants; on counseling to assist the applicants with personal concerns; on working closely with the Aetna's line operations to hire these applicants for full-time, permanent positions; and on expanding the number of public and private agencies that refer applicants.

The Youth Model focuses on youths as an investment in our future and purports that youths need to enter the workforce as adults. Essentially, the model links current youth programs and fills in the gaps that exist to avoid losing the youths along the way. For example, the Aetna begins developing 7th grade youths through the Saturday Academy Program, an enrichment program for youths and their parents/guardians and continues developing 11th and 12th grade youths through Project Step Up, an after school work study program.

Entry level requisitions require such technical and human resource skills as keyboarding, typing, using a calculator, proofreading, working independently and as part of a team, analyzing problems, handling changing priorities,

computing mathematical problems, and writing. Unfortunately, most applicants fall below the desired performance level of these skills. After applicants are hired, they begin a developmental training program that consists of classroom courses, self-paced instruction, rotational internships, and on the job training. Ultimately, the training program may lead to opportunities in such areas as secretarial/office administration, financial/accounting, computer technology, and administrative support services.

Critical to this process is the Aetna's ability to maintain continuity, track learning progress, evaluate feedback from participants, supervisors, and mentors, and respond immediately to employee concerns and problems; to educate mentors, supervisors, and managers about current and future labor market issues and the cultural diversity of the student population; and to collaborate in a variety of ways with high schools, vocational and technical schools, community colleges, and community-based agencies.

2) Skill Upgrading

The upgrading of employee skills is also a critical factor for success in business. As basic literacy is a requirement of competent performance in the vast majority of Aetna jobs, productivity is adversely affected and the Aetna must absorb the cost of remediation. Moreover, the employees who lack these basic reading, writing, and mathematical skills will have few real opportunities for advancement. Far more worrisome are the skill requirements outlined in an article by Paul Adler in a 1987 edition of California Management Review. Referring to the changing features of clerical work in banks, Dr. Adler notes the following: 1) the traditional importance of "responsibility of effort" is being replaced by "responsibility for results" - for the integrity of the process; 2) the relationship between tasks, and between tasks and goals is becoming increasingly abstract; and 3) components of complex systems are becoming more and more interdependent. The message here is that our clerical and administrative employees, as well as the "end-user", are going to have to be able to think critically, discern relationships, solve abstract problems, and communicate effectively.

In January, 1988, as part of the Aetna's comprehensive staffing initiative to close the gap between employee qualifications and greater job demands, the Aetna's Institute for Corporate Education formally opened the Effective Business Skills School, a workplace basic skill development program for current and prospective employees. Simply put, the School's primary objective is to produce an internal pool of candidates who qualify for jobs that require high level skills. To accomplish this objective, the School's curriculum integrates skill development in

learning, reasoning, reading, writing, listening, speaking, mathematics and computer operations within an individual and functional context.

The School embraces a purely learner-centered environment that draws from the students' accumulated knowledge base and experiences and respects their needs, expectations, and values. Through a reiterative learning process of dialogue, inquiry, application, and reflection, the students generally follow a four step process.

First, the students strive to enhance their self-concept by examining their reasons for learning; by confronting their learning anxieties; by exploring the business of financial services; and by recognizing their contribution as employees, options for growth, and maximum potential. Second, the students determine their skill levels by self-assessment, supervisory review, Aetna criterion-referenced tests that measure competency in reading, writing, and mathematics, and other tests that measure aptitude and potential. Third, they create and continually refine a learning plan that reflects individual needs and access to a variety of learning modes including classroom, small group workshops, self-paced courses, independent study, collaborative learning, and tutorials. Fourth, the students apply the basic skills skills to actual job tasks and simulated business cases. Of critical importance, throughout the process, is the extent to which the students learn how to learn, i.e., the extent to which they are able to identify their own needs, select strategies to meet those needs, and monitor their progress on a continuing basis.

3) The Role of Government and the Private Sector

In my judgement, the country will be unable to adequately address the skill needs outlined above without substantial improvements in the productivity of our education and training institutions. This includes involvement from elementary and secondary schools, colleges and universities, corporate training departments, and the federal government.

I believe this process ought to commence with efforts to identify a set of common expectancies. For example, Connecticut's "Common Core of Learning", drafted by a committee of distinguished leaders form across the state and local levels, sets out what our citizens can rightly expect of our students and schools with regard to demonstrable outcomes. The State Board of Education is challenging local school board members, parents, and concerned citizens to use the Common Core to promote and guide a new level of dialogue about education. I should add that included among the expected outcomes in the Common Core are the basic literacy skills as well as the kinds of reasoning, problem solving, and communication skills that I suggested are so critical in

the workplace.

Post-secondary institutions, for their part, can do more to ensure that their graduates are prepared to meet changing skill requirements, especially in technology and human resources. For example, a number of institutions, ranging from Northwest Community College in Connecticut to the Massachusetts Institute of Technology, already require students pursuing a major in the applied sciences or technologies complete coursework in the humanities and social sciences.

Further, corporations that lack the resources to support their own in-house skill development programs are going to have to look to their local postsecondary institutions to provide the education and training their employees need. Corporations that are able to operate their own programs, and these are primarily, but not exclusively, Fortune 1000 companies, are also going to have to look to postsecondary institutions for technical assistance in the areas of both training content and instructional method.

In terms of federal leadership, the government should increase its support to those large urban school districts that are prepared to commit themselves to improving their students' basic literacy skills. The National Institute of Education's "Excellence in Education" activity could be expanded to accommodate this initiative. The U.S. Department of Education could also do more to encourage innovation. In particular, they could provide special incentive grants, perhaps through the Fund for the Improvement of Postsecondary Education, for institutions willing to integrate liberal arts subject matter into their technology curriculum and human relations subject matter into their business management curriculum. In addition, the Department should create something along the lines of a National Clearinghouse on Corporate Training and Education. Although there are a number of clearinghouses already in existence, they are largely unprepared to relate to the needs of the corporate sector.

Ronald E. Compton: Underwriting Business

The president of Aetna Life & Casualty tells how training and education keep a 136-year-old company agile

Ron Compton's first training experience 35 years ago at Aetna was to spend several days with a senior underwriter soaking up everything he could, including smoke from the fellow's cigar. He sat there, with ash dropping onto his tie, teaching me everything he knew about underwriting. He was the training program.

Today, Ronald E. Compton is president of Aetna Life & Casualty, where the training budget is $40 million and serves half of the Hartford, Connecticut-based insurer's 45,000 employees each year. Underwriting is still taught along with hundreds of other subjects ranging from basic work skills such as reading and math, to advanced systems theory. In 1981, Aetna founded the Aetna Institute for Corporate Education, a multimillion-dollar investment in training that Compton and other senior leaders support wholeheartedly.

"I can't imagine trying to run a large business of any kind without formal, detailed training, education, and development. I don't know how you would do it any other way," says Compton.

Aetna's training and education efforts earned for it the 1980 Corporate Award from the American Society for Training and Development. The annual award recognizes overall excellence in training by a corporation. (See related story, page 52.)

In this interview with *Training & Development Journal* editor Patricia Galagan, Aetna's pro-training president looks at his company's efforts to be quick, flexible, and right.

Compton, a philosopher by education and a photographer by avocation, is an insurance executive in the model of Wallace Stevens, the renowned American poet who also was a Hartford insurance executive. Behind the pin-striped image is a keen and reflective individual. Hanging above the Georgian-style fireplace in his office is

With Training

By Patricia A. Galagan

a large, dramatic photograph of a forest seen from the air.

Insurance and financial services, Aetna's two main areas of business, are in a volatile mode right now as consumers challenge insurance rates through state referenda, and hungry new competitors jostle for market share. Through this choppy sea Aetna sets a steady course toward its mission of "providing responsive, market-oriented products and services to customers" while simultaneously giving good value to its shareholders.

Training and education play a prominent role at Aetna as it tries to leverage new technology, develop managers who can think on their feet, and enrich the labor pool from which it will need to draw ever more flexible and smarter people.

TDJ: What do you believe is the value of training and education in the insurance industry?

Compton: Two factors make training critical in this industry. One is that demographics are against us. The baby boomers had BMWs instead of having babies, so we face a shrinking workforce.

The other factor is that public education in the United States has many shortcomings. The fact that fewer workers are coming out of an education system that needs to be more responsive to business needs presents a tremendous challenge for a highly technical and complex organization such as Aetna. Looking into the future, it's clear we have an awful lot of educational work to do ourselves and with schools and colleges.

Insurance is a very technical business, especially in such areas as underwriting and claims. And even though actuarial science is taught as an academic discipline, it's rarely taught with the practical application we require. So we must do some further education to

A Snapshot of Aetna

Aetna Life & Casualty is determined to be quick, flexible, and right. In an era when adaptability is essential, Aetna's claim makes a lot of sense. But living up to that claim takes a lot of determination and ingenuity when you are a 136-year-old company with 45,000 employees and 10,000 independent agents operating all over the world. The Queen Elizabeth doesn't turn on a dime.

Ranked fourth in assets and first in revenues among the *Fortune* 500 service companies, Aetna clearly is doing a lot of things right. But like many large companies with time-encrusted cultures, it is seeking more agility and speed in a fast-changing, competitive, and sometimes turbulent marketplace. When you are 136 years old, flexibility takes on new meaning.

Along with other insurance companies, Aetna faces challenges from states where voters or politicians are asking for significant reductions in insurance premiums and changes in the laws governing auto insurance rates. And in its other major lines of business, including health care and investment management, competitive maneuvering is the norm right now.

The path to speed and flexibility will take Aetna much deeper into technology. Already rich in automated systems for many parts of its business, the company continually educates staff, including end users and support people, in new and future applications of technology.

Expansion into financial services, more reliance on technology, and efforts to find qualified people to hire at the entry level have put training permanently into Aetna's business planning. Most of the need for training is filled by the Aetna Institute for Corporate Education, a residential learning center across the street from the headquarters in Hartford. The institute serves 26,000 people a year, some on site and an increasing number via direct-broadcast television to 75 sites around the country.

Donna Schuberth, senior administrator of planning for the Aetna Institute, estimates that the corporate education group alone delivers 60,000 student days of training annually in management, systems, and business skills. Other training covers technical courses for agents, underwriters, and claims handlers.

Schuberth sees a trend at Aetna toward more integration of training with business goals. "Training here is measured in relation to job performance and outcomes on the job." Another trend is to tailor training to small work groups, giving them skills in planning, performance appraisal, communication, and decision-making.

Low unemployment in the Hartford area a few years back had Aetna looking hard for entry-level workers, especially for clerical and maintenance jobs. To build up the pool of potential workers, Aetna started the Effective Business Skills School, offering several programs in reading, writing, oral communication, math, and computer literacy. Aetna also operates enrichment and motivation programs for inner-city youth in many parts of the country.

"We want to provide the skills necessary for people to get jobs," says Richard A. McAloon, vice-president of corporate human resources. "We're interested in closing the gap between our country's current performance and its great promise."

get people ready to apply their knowledge to the work here.

Also, our company, like many insurance companies, is very large, and that requires some highly developed management talent.

TDJ: Is your concern about demographics that there are fewer people available overall, or that there are fewer of the particular type your industry needs?

Compton: I don't think the latter is true. We need almost everybody. In our society we keep raising the floor. When I first came to work at Aetna there were jobs for elevator operators, and those jobs could lead somewhere. Today those jobs are gone, and you have to come in as something else.

We don't require labor down to the level of the least skilled, but we are not a business exclusively of college graduates or MBAs. Scarcity is everywhere in our spectrum. We were early and aggressive in managing a diverse workforce. We're comfortably prepared for recruiting and hiring women, minorities, and immigrants, and we don't have problems finding people to hire now. But if you read the tea leaves it's certain that scarcity will be a real problem in about five years. We plan to use our education and training programs as a recruiting tool and as a means of making our people better than employees of our competitors.

TDJ: What about the technology you use at Aetna and the skill changes that has caused?

Compton: We've been using sophisticated information systems for the design and delivery of our products for a long time, so we're used to that. Just about the only technology problem we've had is getting senior executives to learn how to type so they can use the computer terminals on their desks.

TDJ: Do you agree with claims that in financial services the technology of information systems enables one person to do jobs that once required many people?

Compton: I don't think that's true. We used to quip that computerization meant that you displaced 50 clerical people and hired 200 senior analysts and technicians.

Having developed a lot of information technology, can we expect a 25-year-old with eighteen months of ex-

Aetna Wins 1989 ASTD Corporate Award

For its excellence in education, training, and development programs, Aetna Life & Casualty received the Corporate Award for 1989 from the American Society for Training and Development. The award is presented annually by ASTD to a company that has shown outstanding commitment to workplace education and employee development. Previous recipients have included the Ford Motor Company, the Dayton-Hudson Corporation, Motorola, and IBM.

Aetna training not only reaches all levels of the Aetna workforce, but extends into the community to train and develop potential employees. The company invests more than $40 million annually in educating employees, independent agents, and potential employees.

Aetna makes heavy use of technology to deliver training to a workforce spread across the United States and throughout Europe and the Far East. Computer-based training, expert systems, and a direct-broadcast satellite television network are some of the technologies Aetna has chosen.

In accepting the corporate award for Aetna, Richard A. McAloon, vice-president for corporate human resources, said, "We are convinced that productivity and business growth at Aetna, and for the financial services industry, are rooted in the successful development and training of the employees on whom we rely to serve our customers. We've made major investments in these efforts because we know that to do otherwise would be to limit our ability to grow and prosper."

The Aetna Institute

Aetna's commitment to education is most visible in the Aetna Institute for Corporate Education. Founded in 1981 and operated as a residential learning center for employees and independent insurance agents since 1984, the institute trains more than 26,000 people annually in subjects ranging from management to basic literacy.

Aetna's training and development programs are described below.

The Aetna Management Process

This system trains managers in techniques for determining business objectives and mapping out critical factors for achieving success in those objectives. Known as AMP, it is a training initiative directly from the Office of the Chairman. President Ronald Compton characterizes the company-wide effort as a way of thinking that is not new but that should be applied to a great variety of situations. "Its purpose is to help us think more clearly."

Office of the Chairman Educational Series

This new effort, developed by the Aetna Institute, comprises a set of educational programs to develop in managers and executives a core of specific managerial competencies. They include ten skills and abilities that Aetna believes are critical to successful performance: use of the Aetna Management Process, leadership, selection of people, development of people, management of resources, communication skills, computer savvy and systems building, business and organizational knowledge, building teamwork, and adaptability.

Technical Training

At Aetna, technical training refers to insurance disciplines such as underwriting, marketing, claims, and the use of information systems. This training helps keep Aetna employees up to speed in the fast-changing insurance environment.

The Effective Business Skills School

This trains 1,500 employees each year in reading, writing, mathematics, verbal communications, and computer skills.

persence to make the same decisions that used to be made by several people? The answer is absolutely not.

There's a combination of things we do that generates a higher level of development in such people, but technology is only one factor. Another is to take them more seriously—to believe that they have higher capabilities.

The theory you mention could prove true in the future. One part of technology for us involves managing a vast amount of information—about rates and claims and other aspects of the business. But we are also like a factory in that we use technology to generate products.

Another way we use technology at Aetna is for education. We need to increase our capability to deliver computer-based education and to make better use of knowledge-based

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systems. When those systems are all in place, they will help develop people more completely and quickly.

TDJ: How do you relate the use of education at Aetna to its corporate goals? How do training and education support those goals?

Compton: We have a system called the Aetna Management Process. It's a simple system for thinking about a problem and examining various aspects of it. The first step is to describe your mission. The second step is to examine what the critical success factors are—to ask what has to go right for you to accomplish your mission.

Then, obviously you need to train people to fulfill those critical success factors. So if we take any one of our insurance operations, we find it has various critical success factors for which people can be trained, such as underwriting or pricing business, managing claims, managing reserves, managing investments, or whatever.

We take the same technique and apply it to management. We asked ourselves what were the critical success factors of being a senior-level manager in this company. What do you have to know how to do? The answers gave us the capabilities that a senior-level person is going to need in this company. And we train for that.

We've tried to find out in a systematic way what people need to know how to do to be able to fulfill this company's mission. Then we bring the curriculum into register with those performance needs.

TDJ: What about Aetna's strategic goals?

Compton: Strategically we want this company to be quick, flexible, and right. We don't have a detailed strategic plan for the 21st century—that wouldn't be flexible. But we have taken two-year and five-year looks into our future.

As I think about the company and about the future I'm convinced of only one thing: that the future is unknowable and mostly unpredictable. So the question is what kind of company do you need to build in order to achieve our mission in a largely unknowable and mostly unpredictable environment? Our answer is that you have to be quick because you can't take years to make decisions. You have to be flexible because the world is going to be inconsistent. And you're going to have to be right. Being wrong can cost you money, but mostly it will cost you time, and the one thing we cannot afford to waste is time.

Our strategic view is not tied to market share or bigness. It's tied to being quick, flexible, and right. From that starting point come other goals. I want to have a company where people dream into the future.

It was an enlightenment to me as a young man to discover that Einstein did not conceive of the theory of relativity by staring at a piece of paper. He closed his eyes and imagined himself riding through the universe on the point of a beam of light. Now that's imagination. Imagination, and the ability to imagine scenarios in the future. Anticipation.

I believe you can develop people's ability to be imaginative if you first tear down all the walls that prevent them from dreaming. You can encourage creativity, first of all by not stamping it out. Our training is aimed, not at telling people to be creative, but at minimizing the things that stamp out creativity.

For example, the Office of the Chairman Series of courses is not intended to teach people to do specific things but to provide a forum in which to discuss issues.

Each fall we hold strategic-management seminars for small groups of high-potential managers. We present a topic such as using technology for competitive advantage. They dream about it, write about it, and talk about it with their managers, and finally with us—the Office of the Chairman. It's a way for them to present ideas without being hammered on.

TDJ: Aetna operates in Europe and Latin America, and is expanding into the Pacific Basin. What will training add to your international efforts?

Compton: Aetna doesn't have to be an international company, but we choose to be because the opportunities are there in insurance and in money management, our two big businesses. Not having to be international gives us more time to educate ourselves about it.

Training people in a classroom gives only the smallest taste of being an international company. You can give people sets of facts that can only be in-

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ingrained into their behavior by sending them to live and do business in other countries. It will take us a long, long time to put our company into the international sphere. A lot of that involves our own acculturation.

Among American business people, the opportunity to travel, especially to the Orient, is often looked on as a boondoggle. But if we were Japanese we would be sending three times as many people abroad for twice as long and looking at the photographs they brought back. Other cultures come here to take pictures of us, which is a euphemism for studying us.

TDJ: Are you involved personally in delivering any training programs?

Compton: I'm involved in the training for the Aetna Management Process. Jim Lynn, the chairman, and I started with the people who report to us and worked down from there. He's the perfect partner for this because he believes so strongly in the value of education in the company. He supports it and presses hard.

When we started the Aetna Management Process training we put every division president, senior vice-president, and vice-president, and a few assistant vice-presidents, through the program in about four weeks. I spent an hour and a half with each group to set the stage.

I also facilitate meetings at which people want to discuss their mission and critical success factors. I talk with them for several hours. It's partly a quality-control device on my part, partly training, and partly a chance to get to know people. Either Jim or I speak at every session of the advanced management course, and I take part in the strategic management seminars. As the Office of the Chairman training gets fleshed out, Jim or I will play a role in all of it.

TDJ: Looking at the tradition of education at Aetna already, and the conditions in the insurance and financial-services industries, it seems that the commitment to training will probably increase. What are your plans for the future?

Compton: Our immediate two-year plan is to train managers for all of the competencies spelled out in the Aetna Management Process. That's a huge job, and we're about halfway there.

Strategically I think that for all kinds of education we've absolutely got to rely more on knowledge-based systems.

When I came here 35 years ago, I learned about underwriting by sitting downstairs on the third floor with an old guy who dripped cigar ash on his tie all afternoon. The training amounted to him saying, "Now listen. This is the way you underpin a building correctly."

Pretty soon we couldn't afford to do that any more, so we sat four people with him. Then we couldn't afford to do that either, so we put him on a stage with 25 people in the audience, and that was the invention of the Aetna Underwriting School.

We still put people in rooms with experts, but we're at the point where we need to unload that expert mind into a flexible system. We've put the expert mind down on paper over the years, but the index is 50 pages long.

> **I want such a perfect blend between education and development that there will be no demarcation. There will be no end to education**

This kind of education has to move into a quicker, more dynamic environment. That means computer-based education in the basics, but also development for people who've been in their jobs for years or even decades. That's where I want this to go.

I want such a perfect blend between education and development that there will be no demarcation. There will be no end to education. There will be the expectation that when anything new about our business is known, we will drop it into our system and it will diffuse itself throughout the minds of all the people who work for us. I don't see that happening in an environment this large and complicated in any other way than by using knowledge-based, online systems.

TDJ: Do you have any advice to offer to people in training and development who are being challenged to help their companies perform better and be more competitive?

Compton: The first advice is based on our relationship with the corporate educators at Aetna. With Badi Foster (president of the Aetna Institute for Corporate Education) and Dick McAloon (corporate vice-president for human resources), I don't know if they're supportive of us or we're supportive of them. That's the kind of relationship we have, and it's one I would recommend.

I think that no one is going to succeed in managing human development with lip service from the top management. No one is going to succeed if the top management just writes an annual letter in support of corporate education.

There must be people at the top of the corporation who genuinely believe that there is no other way to run the business. They must be willing to spend money on education. They must be passionate in their desire for high standards of development activity in their companies. They can't be lukewarm about it. They have to insist on it.

I don't think America is losing its competitiveness. I think we didn't understand the cause-and-effect relationship that got us where we are. Most of our competitors were wiped out by the second world war, and we were generous and strong enough to rebuild their economies without the faintest idea that they were capable of competing. We believed they were second-class industrial powers. I'm a photographer by avocation, and it was not within my understanding that the Germans would ever lose their grip on the world market for lenses. They lost it in a couple of years to a country that had been as devastated as they had.

The number one need in terms of America's competitiveness is for education to give us breadth of vision, especially in our young people. We have been insulated, isolated, and cushioned from reality for too long. We are a great people and yet we fool ourselves. Those oceans are crossed in an instant.

As for the competitiveness of business organizations, you absolutely cannot run a great company without having exceptionally high standards for people and providing them the opportunity to meet those standards. I believe that the job at the top level ought to be to try to make people better than even they believe they can be. If every manager at every level believes that, think what we can do. ☐

Senator GORE. Well, I really did enjoy that testimony. You didn't mince words there. We appreciate that.

We have a time problem on our second panel, I'll say to my colleagues, and because of that I'm going to suggest that we have a fairly strict time limit on questions.

I will wait to ask my first questions but let me suggest that we go 5 minutes each on questions, and I'll recognize Congressman Scheuer first.

Representative SCHEUER. Thank you very much, Senator Gore.

Mr. Foster, I had intended to ask you and Mr. Carnevale a question in my most strict and severe prosecutorial tones. Namely, Mr. Foster, can you tell this room where you were on the morning of October 5, 1987?

Mr. FOSTER. Yes, sir.

Representative SCHEUER. And Mr. Carnevale, can you tell this room where you were on the morning of October 29, 1987?

And the answer is, of course, you were both right here. And you were testifying, very much as you've testified this morning: brilliantly, thoughtfully, incisively, and creatively.

Now to me the big question that we have to face this morning is how do we segue? Well, one of the things we have to figure out is how do we segue from school, from the world of education to the world of work?

And another question that we have to figure out is how we segue from the world of congressional hearings to the world of action, programs and policies presented by the administration to the Congress?

There's a tremendous gap here. I am almost embarrassed to see you two brilliant gentlemen sitting here going through the same exercise that we went through 2 years ago.

It seems to me there's very little that we know today that we didn't know 2 years ago. If I'm wrong, please tell me.

It seems to me the key question was addressed by a very conservative Republican economist who was Chairman of the Council of Economic Advisers to President Nixon, Herbert Stein. And he testified before this same committee about 50 days ago, on September 12 of this year, and he encapsulated the main problem that I think we have to deal with:

> It's time we started facing our real choices. We have to stop saying that we can't afford to do this or that when all we mean is that we cannot afford it within the rules of the game we have arbitrarily established and agreed to play.
>
> What we should mean when we say that we cannot afford to spend a certain amount of money for drug control or for education or for assistance to poor people or for national security is that we prefer to spend the money on something else. Then we could have a debate about whether one use of the money was more valuable than some other, which is what rational budgeting is all about.
>
> We would also see that the alternative uses among which we have to choose are not the different direct government expenditures within the $1.1 trillion budget, they are the direct uses of the $5 trillion that is the national output.

In other words, we have an enormous pot of resources out there. Not just the $1 trillion budget, but the $5 trillion national output. And if we care about education, if we care about drug enforcement, if we care about facing up to all of our unmet needs, we have that total pool to look at.

Now getting back to my question of how do we go from here to there, how do we go from a congressional hearing that has considered these subjects ad nauseam, how do we get to specific practical programs that the administration recommends to the Congress and which I think the Congress would react enthusiastically to on a bipartisan basis, on a bicameral basis, the House, the Senate, the Democrats, and the Republicans. We are all quite aware that the public is way ahead of us on this loop.

What do we do to move it ahead? To move to the point where the Congress is considering specific, practical, tangible, and well thought out proposals from the administration to the Congress for policies and programs that we're in business to enact.

And if you disagree, either of you, with what I said, please tell me where I'm wrong. It seems to me we have an enormous gap here.

Mr. FOSTER. Congressman Scheuer, I would answer the question by posing a question—and you're in a much better situation to answer this: Do you think it's the absence of will or is it the absence of capacity? And let me suggest that capacity would involve knowledge, creativity, the ability to link with others, or identifying the appropriate means.

Quite frankly, I'm puzzled. I don't know whether it's the absence of will, that we don't want to do that, or in fact that there is an absence of capacity in translating hearings into action. I don't know.

Representative SCHEUER. Well, I think it's both. I think it's the absence of leadership. Leadership would go to the question of capacity—and Herb Stein identified the problem of capacity, which is a nonproblem. He said look to the $5 trillion gross national product. There is a richness of resources there that boggles the mind if we have the will to use it and if we have the capacity to use it.

And we know we have the capacity. You gentlemen testified here just this morning; two other very able witnesses testified here this morning. You two guys gave us more or less a repeat of what you said 2 years ago, that was just as valid then as it is now and it's just as valid now as it was then.

How do we summon up the will and how do we summon up the capacity? To me it's a question of national leadership. It's a question of presidential leadership.

I believe the President could lead us into a new era, a new era that would enrich our society, enrich our productivity, enrich the quality of our citizenship, and the quality of our life. And it's to me just a painful, tragic thing that that leadership so far is absent, on both will and capacity.

My time is up. Thank you, Senator Gore.

Senator GORE. Thank you.

Congressman Obey.

Representative OBEY. Well, Senator Gore, given the problem of time that we have, I'd simply ask one question of any member of the panel who would choose to answer it—and it's a very broad-gauge question, somewhat related to the exchange you just had with Congressman Scheuer.

With respect to this society, with respect to the Government, with respect to the private sector, what would you say are the most

important things that we do not know about the causes of and the techniques for correction of shortfall in workplace quality or work force quality?

And would you say that our principal problem is lack of knowledge, lack of a strategy, lack of methods of implementing any strategy, or the refusal to apply sufficient resources?

Mr. CARNEVALE. Let me at least have my shot at that.

One of the problems that's real clear in this business of making people more productive or making them more well educated is that we don't understand what we know. We know that if you invest in human beings the return is really quite high, that is, the returns to education in the past 25 years or so have been—in terms of their proportion of our productivity increases have run about 25 percent as against capital, which is about 20 percent.

But we also know that everything seems to work somewhere and nothing works everywhere, everything works sometimes, nothing works all the time.

We do know more about education than we do about adult learning. And there we know that investments in people and connnecting people more to the strategic change processes in institutions makes them enormously more productive. It also increases their earnings enormously, much more so incidentally than an additional application of straight education.

Where we are missing knowledge in terms of practices is in adult education, more so than in elementary, secondary, and higher education. And most of those problems are really pretty practical.

Fifteen years ago we knew that CAD-CAM machinery was coming. American employers in literally tens of thousands of different locations bought different equipment, applied it in different institutions to different workers. There was a common experience there that we could have learned from and expedited the installation of that machinery and its effective use.

There was nowhere for them to go, especially the middle-sized and smaller employers, to find out how to do it. What tended to work, what didn't, what was the quality of the equipment, what training was required, how do you build the line.

The biggest vacuum in our understanding is in the workplace itself, which, after all, we don't make radios at Harvard, we make them at Motorola, or at least we used to. The learning system that is embedded in the economy is the one that competes, it is the first line of competition for learning in the American society.

And there is a huge missing piece there, with a very substantial investment, I would argue, on the public education side that sort of falls off into a void. After somebody graduates from high school or college the learning stops. Or at least the state of the art in understanding the processes of learning and what needs to be known, stops.

Mr. HIRSCHHORN. If I could just add two things. Concerning what we don't know, we don't know enough about how to link training efforts at the workplace to organizational processes of the workplace. The two tend to be separated most of the time.

So we find that a lot of training efforts don't add value because they're not internalized by the different groups—managers, workers, engineers, and sales people—who have to collaborate to make

the training real. That's a major piece of learning that has to be done.

The other thing I think we don't know how to do yet—and this is much the question of technical knowledge—I don't think we know how to create at this time in the United States stable and developmental multiracial settings. I think we're discovering that multiracial settings are very fragile and are often decaying in some important ways. We don't know how to do that and that requires a much broader cultural study of ourselves to find out what to do about that.

Mr. NOYELLE. Let me reinforce that point and maybe add one point to it.

I agree with both Tony Carnevale and Larry Hirschhorn and think the least-known area is the area of firm-based training.

I also happen to disagree with the statement that was made this morning by the Assistant Secretary of Labor to the effect that firms are called on to pick up the slack of the educational system. In a way they do, but in another way they don't.

What we're finding from looking at what firm-based training is increasingly transforming into is that firms are actually getting out of the business of providing remedial training, as they might have once done it in the past. Instead firms are increasingly focusing on how to prepare people for the new technology, for the new products, and for the new behaviors.

And, as Larry Hirschhorn just pointed out, the area that's the least understood is probably that last area: the new behaviors. It's easy to train somebody to use CAD-CAM equipment, at least relatively speaking.

What's much more difficult to do is to predict and to train people for how the introduction of the CAD-CAM machine is going to transform the nature of the work relations within the workplace, the relationships between workers and supervisors, the relationships between the firm and the outside environment.

This is what I've described in my earlier examples as the new customer-assistance and sales behavior. I think those are areas that need to be explored and understood better so that we can focus better on how to help out firms improve those areas of their training in ways that will increase their competitiveness.

Mr. FOSTER. May I just add something here, almost as a metaphor of what we don't know. We don't know how much we depend on each other, and I'll give you a rather dramatic analogy, which goes back to the point of the Assistant Secretary of Labor that money alone is not going to do the trick; we're talking about transformation in a variety of ways.

But here is the analogy. It has to do with the collection and distribution of blood, and I think I used the same example 2 years ago—and really, I'm taking the idea from Richard Titmus, who wrote a little book on the gift relationship. And his point was this:

That when you give blood you are making a contribution, it's a unilateral transfer and you're more likely to be honest—you're not looking for something immediately in return. You may say, "well, gee one day I may be hurt and somebody would give me blood," but you actually give blood without expectation of immediate return.

And so therefore if you're not feeling well—in effect, someone says, well, how are you feeling, Senator, and you say, well, not too well? Well, come back 6 weeks from now and we'll take your blood.

Once you start commercializing the collection and distribution of blood, regardless of the technology, you run a risk now of having contaminated blood. And these viruses are becoming trickier and trickier.

So that when those individuals stopped giving blood because they felt—they weren't connected to a community, then sent a check instead. The irony of it is that if they stepped outside and got hit by a bus there's no guarantee that when they got to the hospital and they needed blood they would in fact receive uncontaminated blood.

Now, that's a rather dramatic example. We do not know or we choose not to know that the well-being of our fellow citizen in their work and in their community has a direct impact on the quality of my life. Now, if I understood that a little bit more then perhaps I'd be willing to make some tradeoffs: postpone short-term gain for long-term gain.

Representative OBEY. Thank you, Senator Gore.

Senator GORE. Well, thank you very much. And, indeed, these time constraints are frustrating and I'm sorry we can't pursue that more fully.

Let me just, on my time, mention an example of success: In Tennessee, 3 weeks ago, I had the opportunity to visit a plant which was inaugurating a new production line making color television sets for export to Japan; 80 percent of the parts are made in the United States. The research and development takes place in the United States, in New York as a matter of fact. The advanced engineering takes place in Knoxville, the circuit boards and the cabinets and various parts are made throughout the southeastern United States and principally in Greenville, Tennessee, where the final product is assembled and then shipped to Japan. They're also shipping sets to Korea. They're shipping sets to a number of other locations as well.

I was quite impressed. The production line had an interesting innovation. Perhaps these experts won't see it as anything new; it was new to me.

I was familiar with the process by which a single worker can stop the production line if things are not going well. They took it one step further and told all 3,000 people at work there that after they finished their task they had to then press a button affirming that they had done it right and they were ready to proceed. So in other words, the line automatically stopped and didn't continue unless all 3,000 people together said we've all done it right, the line can now continue. The quality control problems there are virtually nonexistent.

Why can't we have more success stories like that?

The company, while all the work is done in the United States, is not an American company. It's North American Phillips. It's located here but the capital and the decisions about spending that capital are made in the Netherlands. They were willing to invest for 10 years, with losses during each of those 10 years, before this pro-

duction line was up and running. This past year is the first time in that 10-year period that they have turned a profit.

But they are now one of the three largest television plants in the entire world. They're doing extremely well. They have offered extensive training to their work force. The level of automation is unprecedented in the industry and, as I mentioned, the quality control procedures and work force relationships are quite well in hand also.

I don't think that it's a key factor that the company was Dutch instead of American, but maybe it is.

Is the unwillingness of top management to accept losses for an extended period of time in return for a payoff down the road a major impediment to implementation of the modernization and particularly the skills upgrade programs that we need in America's work force?

Mr. CARNEVALE. Well, American organizations have been extremely successful with the other model, which doesn't use work teams, which doesn't rely on nonsupervisory workers, which doesn't customize products, which doesn't provide variety, which provides products and services at low cost.

That transition in all of us who work in individual institutions—while it is obvious when you've seen it somewhere, then moving to a second institution where it doesn't exist, you end up dealing with very profound attitudinal problems, traditions, practices, established personnel and their needs, it is a set of changes that come very hard to institutions, and the larger they are the harder it comes.

I might add, however, that in private institutions it comes eventually and most of us are learning these practices and they are sort of all of a piece, there's a package here, from foreign companies.

And we're either going to learn them the hard way in the United States, by implanted production systems from other nations—and that's going on in most of our industries now, with some exceptions like appliances and so on—or we're going to learn them by ourselves. But we will learn them. And I think that what we're talking about is a set of change processes and how difficult it is for us to change.

One final point about that. Those change processes are even more difficult in the public sector. At least in the private sector you have the discipline of a market. If you don't build a good TV nobody will buy it.

In the public sector, in our schools, for instance, we have always—and in our courts and elsewhere, we've always guaranteed due process, access to a service. We don't guarantee outcomes, we guarantee access. And much of the reform problem we're having on the public side is our inability to begin to guarantee outcomes, to look at the quality of the product or the service rather than the process that produces it.

Senator GORE. Anybody else?

Yes, Mr. Noyelle.

Mr. NOYELLE. I would suggest that maybe U.S. manufacturers should also take a look at what U.S. service firms have been doing. My research suggests that there's quite a number of U.S. service

firms that have been quite successful, partly as a result of making the sort of long-term investment to which you've referred.

To pick one example I will remind you of the experience of Citibank's consumer banking operation, which, I believe, lost money for 5 or 6 years in a row in the midseventies partly to meet the need for extensive investment in new systems and in human resources.

The result is that the bank transformed its consumer banking operations into probably the most successful and profitable such operation in the 1980's, while I'm not a spokesperson for the bank, there is nothing that Citibank has to feel ashamed about when comparing the quality of its consumer banking operation to those of it competitors.

Senator GORE. Thank you.

Mr. FOSTER. Senator, I would simply say that in the material I submitted there's an article on Aetna's president, Mr. Ron Compton, who describes why we invest so much in education and training and I think his explanation would speak directly to your question.

Senator GORE. Very good.

Well, gentlemen, thank you all very much for your appearance here. We are most grateful to you, you've gone to substantial trouble to be here and you've made a great contribution. Thank you very much.

Our final panel is made up of Mr. Robert Knight, president of the National Association of Private Industry Councils; Mr. William Kolberg, president of the National Alliance of Business; Ms. Rae Linefsky, senior vice president of the Federation Employment and Guidance Service; and Mr. Owen Peagler, chairman of the board of the 70001 Training & Employment Institute.

Mr. Kolberg, I know that you have some time constraints and we will ask for your summary statement first. All of the prepared statements will be put into the record in full and if you could summarize in 5 to 7 minutes, we would appreciate that.

Mr. Kolberg, please proceed.

STATEMENT OF WILLIAM H. KOLBERG, PRESIDENT, NATIONAL ALLIANCE OF BUSINESS

Mr. KOLBERG. Senator Gore, I appreciate your consideration. I have appeared before you on this general subject in several years past; certainly Congressman Scheuer will remind me that I appeared before his fine hearing several years ago; and I certainly have appeared before Congressman Obey seeking funds many, many times. It's good to be with you all again.

I congratulate the committee for initiating this hearing on the Crisis in the Workplace. Today American businesses are operating in a period of exceptional change and challenge, resulting from new technology, demographic shifts, increasing international competition, and a host of rising social problems.

Business leaders are increasingly focusing greater attention on the issues of education, training, and human resource investments related to their productivity and to work force quality.

Senator Gore, I was privileged to serve as a member of the Commission on Workforce Quality and Labor Market Efficiency, appointed by the Secretary of Labor over this past year. Our report, which I have with me, "Investing in People: A Strategy To Address America's Workforce Crisis," was delivered to the Secretary of Labor and released last Labor Day. I trust the committee has copies of this; if not, we can certainly arrange to have them delivered to you.

The report summarizes very well, we think, the vast numbers of American students that cannot meet the educational requirements of today's workplace, much less those of the next century. We will face labor shortages that will require the most efficient use of skills that already exist within the population and it is important to our long-term competitive posture to develop a coherent, reliable system of lifetime education and training.

A few examples from companies begin to tell the story.

At the New York Telephone Co., only 20 percent of applicants taking an operator's test in basic skills pass that test. And, Senator Gore, they're all high school graduates.

In Motorola, they find that only 20 percent of the applicants can pass a simple seventh grade English comprehension or fifth grade math test.

And the list could go on and on, and I know the committee has heard this list many times before. It demonstrates why business leaders are serious today about these issues. It is undeniable that our competitive advantage increasingly depends on the skills, the knowledge, and the flexibility of our work force.

Business and government must take action effectively on three fronts to meet this challenge. The first front you've talked about this morning a great deal, workplace training, including basic literacy. The second front, basic education reform. And the third area are second chance systems of job training and support for the disadvantaged.

Let me first talk for just a moment about the workplace literacy and training. In our Commission report we argue strongly that it is important to create a business environment that encourages employers to invest more in their workers.

According to the best information available, American firms now spend about 1.5 percent of their payroll on training. The best and most progressive corporations, however, in this country spend somewhere between 3 to 4 percent on training.

Information we have from other countries is spotty—though you've heard this morning, some of what the French do, what the Canadians do, what the Swedes do, what the Germans do. I recently traveled to Germany and had the opportunity to spend some time at Mercedes-Benz. They spend somewhere around 5 to 6 percent of payroll on training and retraining and upgrading and lifetime learning.

There is no question in my mind that part of the work force crisis referred to in our report is tied directly to the need for American firms to spend more on training, particularly on basic literacy and on skill upgrading. We must invent new ways to provide incentives to American firms to help them invest more in human re-

source development, which we must do just to remain competitive in the world market.

The Commission recommended that the United States, meaning the Congress and the administration, take another look at tax policy as a means of stimulating human resource investments. Some of the means we recommend be considered are a corporate income tax credit for education and training expenses, a personal income tax exemption for all employer-provided education and training benefits; and the encouragement of multiemployer training programs.

We in the Commission did not pretend to be expert about the Tax Code or various implementation issues. The report expresses some qualifications that we had about these recommendations that we could already anticipate. However, the principal goal of motivating business and government to invest in its work force is absolutely sound.

Let me then go on to the second area: education reform.

There is no doubt among business leaders that fundamental changes are needed in our public education system. The only solution seems to be totally restructuring the way that we manage and that we provide education in this nation.

While it is the schools themselves that must change, we believe that business can and must help. We can no longer afford to tinker at the margins and wait for modest changes. We are after genuine restructuring.

Business-education partnerships of the past were largely what we call "feel good" relationships with some community benefits, but they don't really get to the basic fundamental improvements.

We need to initiate change that will affect curriculums, that will change school management and administration, that will upgrade the teaching profession, that will improve the accountability, and that will make social services more readily available to the increasing number of young people who bring their troubles and their problems to school.

We also have to pay more attention to programs and policies that address early prevention and intervention strategies for at-risk children.

As an indication, Senator Gore, of how seriously we in business view the crisis in education, the major national business organizations have come together in what we call the Business Coalition for Education Reform. These organizations are my own, the National Alliance of Business, the Committee for Economic Development, the Business Roundtable, the U.S. Chamber of Commerce, the Conference Board, the National Association of Manufacturers, the U.S. Hispanic Chamber of Commerce, and the American Business Conference.

I can't emphasize to the committee members enough this morning how serious we in business are about this issue. The only solution is to restructure the way we manage and provide education in this nation. We need systemic changes in the fundamental relationships within education and between education and society. If we are to remain competitive, the schools must provide the knowledge and the skills necessary for a lifetime opportunity of productive employment.

I'll just summarize the education discussion on this one note, Senator Gore: The Business Roundtable, in their recent statement on education reform, pledged to their members and to this country that they would continue to be active in this area for at least a decade. The rest of these organizations feel the same way.

We're in this for the long haul. We're as frustrated as Congressman Scheuer is about the progress, the slow progress we're making. But we're beginning to understand the problem and we're beginning to address it, and we're in it for the long haul.

Let me then talk for a few moments about the second chance systems.

Even if primary and secondary schools are improved, there are individuals who leave school without the basic skills needed to function effectively in the workplace. Providing a second chance for those who are disadvantaged has been a major role of Federal training programs for some years. Increasingly, the focus of these programs is changing from providing social services to providing education and skills as an investment in national competitiveness.

The Job Training Partnership Act system has proven to be a good vehicle, we believe it has succeeded and we believe it should be built upon.

We believe the Federal Government needs to be a more responsible partner in its funding of this system. The Federal investment has declined consistently over the last decade. As a matter of fact, since the JTPA program was passed, the Federal investment is now worth 25 percent less than it was in 1982. We think that is unwise policy in terms of the work force quality that we need in the United States.

Increased investments in these second chance programs is important over the long haul.

Let me then conclude, Senator Gore.

Life-long learning in the workplace, early childhood development and education restructuring, and second chance systems for those who are failed by traditional institutions comprise what we believe are three critical elements of a long-term economic policy. If we neglect these important responsibilities, we risk losing capacity to compete in world markets.

The important point is that more innovative partnerships must be forged with government to achieve common human resource development goals effectively. American businesses are investing more and will continue to do so on basic literacy, skill upgrading, and training just to survive. Our worry is that the level of investment may not be sufficient to keep pace with our competitors. Business and government must work cooperatively to improve national policies that will motivate the critical investment of public and private resources.

The alternative, I believe, is an American work force that is undereducated, undertrained, and ill equipped to compete in the 21st century.

[The prepared statement of Mr. Kolberg follows:]

PREPARED STATEMENT OF WILLIAM H. KOLBERG

Mr. Chairman, I commend you for initiating this hearing to focus on the workplace crisis that is being reflected in the mismatch between jobs and skills.

I am William H. Kolberg, President of the National Alliance of Business. The Alliance has over two decades of experience working in public/private partnerships on issues of workforce quality. I will try to distill some policy and program trends that I believe are important today to long-term objectives in federal workforce investment policy.

Today, American businesses are operating in a period of exceptional change and challenge, resulting from new technology, demographic shifts, increasing international competition, and a host of rising social problems. Business leaders are focusing greater attention on the issues of education, training, and human resource investments, related to productivity and workforce quality, than at any other time in recent history. America's future depends increasingly on what business, government, and labor can do together to develop the superior quality of its workforce.

The basic economic importance of education and training is being rediscovered dramatically in this nation. The American Society for Training and Development contends that learning on the job contributed over half (55 percent) of all improvements in this nation's productive capacity between 1929 and 1982. Looking at the recent economic history of our major competitors around the world, it is clear that acquired skills have replaced machines and natural resources as the foundation for production and service delivery.

PROBLEMS OF WORKFORCE QUALITY

I was privileged to serve as a member of the national Commission on Workforce Quality and Labor Market Efficiency over this past year. Our report, ***"Investing in People: A Strategy to Address America's Workforce Crisis,"*** was delivered to the Secretary of Labor and released last Labor Day.

The Commission members represented a broad range of sectors in society, but we all came away from that experience genuinely concerned about a crisis of workforce quality in our nation that could threaten the foundations of the American economy. I was impressed that all of us on the Commission sensed an urgent need for action in both the public and private sectors.

As the report summarizes very well, vast numbers of American students cannot meet the educational requirements of today's workplace, much less those of the next century. We will face labor shortages that will require the most efficient use of skills that already exist within the population. It is important to our long-term competitive posture to develop a coherent, reliable system of lifetime education and training.

A few examples begin to tell the story:

- At the New York Telephone Company, only 20 percent of applicants taking an operator's test in basic skills pass.

- Motorola, Inc. finds that only 20 percent of its applicants can pass a simple 7th grade English comprehension or 5th grade math test.

- And when the IBM Corporation installed millions of dollars worth of new computerized equipment in its plants in Vermont, it had to set up classes in high school algebra for thousands of production employees before they could operate the equipment.

- At the BellSouth Corporation, fewer than 1 in 10 applicants overall meet qualification standards for jobs; fewer than 30 percent of applicants for clerical jobs could meet skill standards and almost 50 percent of those tested were not qualified for jobs requiring even light typing.

The list could go on. It demonstrates why business leaders are serious about these issues. It is undeniable that our competitive advantage increasingly depends on the skills, knowledge, and flexibility of our workforce. The jobs being created are more complex, requiring higher literacy, communications, and reasoning skills.

The Alliance is deeply concerned about the mismatches between our workplace needs and the skills and capabilities of our future workforce. The seriousness of this mismatch will increase, because the number of new workers will diminish through the

year 2000, and entry level workers will increasingly be drawn from the bottom half of the workforce in terms of educational achievement and training.

Disadvantaged youth who will constitute an increasing proportion of the future workforce are much more likely to be functionally illiterate, to be school dropouts, to become pregnant as teenagers, to abuse drugs or alcohol. Their economic, social, and educational problems are intertwined. Children reared in poverty, for example, are one-third less likely to graduate from high school than other children.

THE CHALLENGE FOR BUSINESS AND GOVERNMENT

Business and government must take action effectively on three fronts to meet this challenge: workplace training including basic literacy; basic education reform; and second chance systems of job training and support for the disadvantaged.

Workplace Literacy and Training. Since over two-thirds of today's workers will remain in the labor market beyond the year 2000, the labor force of the future is in large part the labor force we have today. Today's labor force does not meet our needs, and our needs are going to increase as technological change accelerates and foreign competition intensifies.

The Labor Department's report of two years ago, ***Workforce 2000***, projects that the jobs of the next 20 years will be very different from the jobs of today, again requiring substantially higher skills. These are circumstances that will force us to retrain experienced workers if we are to meet the competitive demand for new skills.

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In our Commission report, we argue strongly that it is important to create a business environment that encourages employers to invest more in their workers. According to the best information available from the American Society for Training and Development (ASTD), American firms spend about 1.5 percent of payroll on training. The best and most progressive corporations spend about 3 to 4 percent on training. Information we have from other countries is spotty, but, from my recent travels, I found that Mercedes-Benz in Germany spends 5 to 6 percent on training and invests heavily in continual upgrading of existing workers.

There is no question in my mind that part of the workforce crisis referred to in the Commission's report is tied directly to the need for American firms to spend more on training, particularly on basic literacy and skill upgrading. The degree of cooperation I find in Germany around all types of training is dramatic. The concepts of partnership and shared goals are important to them. Business, labor, and government operate as a team at all levels of the economy, and they have been doing so for years. We need to find ways to instill that spirit of collaboration among the various sectors of American society.

Our nation is taking only its first steps toward addressing basic workplace skills deficiencies. This is an area in which a few larger corporations like IBM, Xerox, Eastman Kodak, and Motorola are breaking new ground. Other companies are rapidly coming to the realization that they need to follow suit. Some corporations have had to upgrade basic educational skills before undertaking new product lines, retooling manufacturing processes, or implementing new management techniques.

We must look not only at how we train, but also at how we stimulate greater investment in training. Improving both activities will require public and private cooperation.

We don't have a long tradition in public policy for assisting training and upgrading on the job. Most of the training that has been done has been financed by corporations, when they thought it to be necessary. Now corporations are changing their assessments of what is necessary. A problem for many corporations is that state of the art knowledge about what works most effectively to train or retrain workers is anecdotal and is not easily shared among corporations in the competitive economy we enjoy.

Independent studies have found that most people learn better when they learn in the context of a job. Workers that need basic education skills are best trained in a manner that relates academic skills to practical workplace skills. Some corporations train on the job site, in the union hall, or at community colleges to enhance the dignity of the learning process, especially when basic literacy is involved, compared to the institutional school settings associated with youth and prior failings. Unfortunately, not enough of this is done, but its success in corporate sponsored programs demonstrates that we have not been creative enough in how we educate and train in conventional institutions.

We must invent new ways to provide incentives to American firms to help them invest more in human resource development, which we must do just to remain competitive in the world market.

We noted in the Commission report that one obstacle to consistent employer investments in human capital has been the loss of such investments through employee

turnover. Employers often do not benefit from the expected return on training investments. The United States has low job tenure compared to other countries, at about 7.2 years.

Different training strategies in other countries like Germany and Sweden use systems of longer-term, structured, workplace learning and apprenticeship which tend to retain employees. France has a refundable training tax credit which essentially requires all employers to spend at least a minimum amount on education and training.

The Commission recommended that the United States take another look at tax policy as a means of stimulating human resource investments. Some of the means we recommend include: a corporate income tax credit for education and training expenses; a personal income tax exemption for all employer-provided education and training benefits; and encouragement of multi-employer training programs.

The Commission did not pretend to be expert about the tax code or various implementation issues. The report expresses a few qualifications about these recommendations which we could already anticipate. However, the principle goal of motivating business and government to invest in its workforce is absolutely sound. Some recent travel experience in Europe has validated this for me personally.

The use of the tax code to alter economic and social behavior is an acceptable time-honored tool. The federal government should use such tools to its advantage and signal to employers that investments in human resources are as important as investments in research and development.

Education Reform. There is no doubt among business leaders that fundamental changes are needed in our public educational system.

Education quality must become a national priority, and not just a local or state problem. We need to dedicate greater energy, efforts, and resources to education excellence. We have no choice.

For the first time that I can remember, national business leaders and their organizations are serious about the education crisis and have come together to form a coalition which focuses on the quality of education in this nation. This coalition includes the National Alliance of Business, Committee for Economic Development, The Business Roundtable, Chamber of Commerce of the United States, The Conference Board, National Association of Manufacturers, U.S. Hispanic Chamber of Commerce, and American Business Conference.

I can't emphasize enough how serious business is about this issue. The only solution seems to be restructuring the way we manage and provide education in this nation. We need systematic changes in the fundamental relationships within education and between education and society. If we are to remain competitive, the schools must provide the knowledge and skills necessary for a life-long opportunity of productive employment.

While it is the schools themselves that must change, we believe that business can and must help. We can no longer afford to tinker at the margins and wait for modest change. We are after genuine restructuring. Business-education partnerships of the past were largely "feel good" relationships with some community benefits, but they could not affect the fundamental improvements needed for learning.

These partnerships must focus on changing what exists. The crisis calls for an innovative generation of joint ventures built on very different relationships between the public and private sectors. To accomplish this restructuring, we need to create new public-private ventures that can produce better ways to educate our citizens.

We need to initiate ventures that affect curricula changes and how we teach, school management and administration, upgrading the teaching profession, improving accountability, and making social services more readily available to our young people who bring their troubles and problems with them to school.

We also have to pay more attention to programs and policies that address early prevention and intervention strategies for at-risk children. Assistance for our young children must occur as early as possible in their lives. We must invest in early prevention strategies for children at risk to become ready for school, and to help their parents become better skilled at supporting their educational needs. We need to financially support programs that focus on preschool education, such as Head Start, and prenatal care for poor women. We recognize there is a budget crisis in this nation. Our goal must be to find the necessary resources to support these kinds of programs, like Head Start, and move towards full funding by the year 2000.

To help build effective new partnerships, and to motivate action, the Alliance has written some publications for business that talk about how to get involved. They are built on practical experiences and research for developing this new generation of partnerships and for restructuring education. They are practical tools for a corporate action agenda. I will be happy to provide them to the Committee for your review.

Second Chance Systems for Job Training and Employment. Even if primary and secondary schools are improved, there are individuals who leave school without the basic skills needed to function effectively in the workplace. Providing a "second chance" for those who are disadvantaged has been a major role of government training programs at the federal, state, and local levels. Increasingly, the focus of these programs is changing from providing social services to providing education and skills as an investment in national competitiveness.

Congress is currently struggling with amendments to some of these basic systems like the Job Training Partnership Act, most particularly with how to target these programs so that they serve more individuals who will not make it into the labor market otherwise. We agree that a more careful job can be done. Programs can be targeted more based on where the eligible population resides.

The Job Training Partnership Act system has proven to be a good vehicle that we can build upon. The experience of the public/private partnership in this system has been incorporated increasingly into program planning for vocational education and welfare to work programs. As I mentioned before, this type of partnership model is a pivotal ingredient if we are to improve our education systems or to bolster training in the workplace.

Government needs to be a more responsible partner in its funding of these efforts. The federal investment has declined consistently over the last decade. For example, in 1983 the amount of funds provided through federal appropriations for programs under the Job Training Partnership Act (JTPA), particularly the program of grants to states and local service delivery areas for training economically disadvantaged individuals, were sufficient to serve, on average, about 5 percent of the eligible population. Now JTPA

programs are able to accomplish only three fourths of what they could do in 1983, because of reductions in appropriations and inflation costs.

In today's tight labor markets, these programs must increasingly focus on harder to serve individuals, further raising program costs and reducing the numbers served.

Just last year, Congress placed a high priority on new initiatives that established comprehensive programs of assistance to dislocated workers, under the comprehensive trade reform act of 1988, and to welfare recipients, under the Family Support Act of 1988, to provide them with necessary education, training, and transition assistance into jobs. Congress made substantial commitments in the authorizing statutes, but has not followed through consistently with the strategic funding commitments. There is little prospect that these programs will be funded near authorized levels, limiting their potential impact, and possibly setting them up to fail.

In my view, increased investment in these second chance programs is important given the long haul ahead of us before we see results from education reform.

THE NEED TO INVEST IN EDUCATION AND TRAINING

Business views remedial education and training investments as part of a necessary national strategy to restore productivity growth. Individual companies have a profound interest in finding ways to restore consistent productivity improvement, since their very survival depends on it.

The investment by business in worker education and training is substantial. American corporations currently spend an estimated $30 billion on formal training

programs for employees. The American Society for Training and Development (ASTD) predicts that over the next decade these corporations will have to spend as much as $25 billion yearly on remedial education alone. Motorola spends about 60 percent of its employee training budget on remedial education in basic math and reading skills.

The important point is that more innovative partnerships must be forged with government to achieve common human resource development goals effectively. It is impressive that businesses are investing billions of dollars in education and training. It will have to spend more to remain competitive. However, each dollar business has to spend on remedial education, that schools failed to provide, is a dollar that cannot be spent on product research, development, and investments in modern new equipment to increase the nation's competitive edge.

The problem is most acute for small businesses that rarely have much of a training budget to begin with, and are forced to make do with whichever workers are available to them. Ironically, the nation is counting on small businesses to lead the way with new job creation.

Education and training investments are a matter of national priority in our continuing efforts to improve the competitive posture of our workforce in the world market. Yet, federal investments in these critical areas lag substantially behind the rising demand for public education and training services.

IN CONCLUSION

Mr. Chairman, in my view the facts are inescapable. Investments in the quality of our workforce must be a high priority over the next decade. That is why I think these hearings are so critical and timely.

It is important to reexamine our economic priorities. Life-long training in the workplace, early childhood development and education restructuring, and second chance systems for those who are failed by traditional institutions comprise three critical elements of long-term economic policy. If we neglect these important responsibilities, we risk losing our capacity to compete in world markets.

American businesses are investing more, and will continue to do so, on basic literacy, skill upgrading, and training just to survive. Our worry is that the level of investment may not be sufficient to keep pace with our competitors. This is where government can encourage changed behavior.

Business and government must work cooperatively to improve public policies that will motivate the critical investment of public and private resources. Most of what has to be done will be done by corporations for their own economic reasons. But for small businesses, perhaps the tax code could be used to share the costs of training and to provide them with important incentives that may not be as critical to the large corporations.

We call on the Congress for a sustained increase in federal expenditures on human resource programs. We likewise call for additional human capital investments by American business, states, and local communities.

The alternative, I believe, is an American workforce that is undereducated, undertrained, and ill-equipped to compete in the twenty-first century.

I will be happy to answer any questions you may have.

Mr. KOLBERG. Senator Gore, if I could just impose for one more moment, I want to respond directly to Congressman Scheuer. I do have to leave, but I understand after being here for several hours his concerns and the concerns of the committee.

First of all, Congressman Scheuer, I know you're frustrated, but these kinds of hearings do have an impact. I wrote you recently suggesting you might hold hearings on "Investing in People," the report I just talked about. It shows the respect that we in business have for the impact of these kinds of hearings—the hearing today, the hearings you had several years ago. It may feel like water torture, but sometimes that finally does get the point across. I believe that we have made some progress.

Let me point to the progress that I think we've made in the understanding of the education problem.

Two years ago, when I appeared before you, I never imagined that the major national business organizations, to an organization, would step up to the challenge of the business role in education reform.

I won't brag about what we've done, but I'll say that we're there. We're there together, we're there with a real understanding of the impact of this problem on this society and the need for American business to be much more serious at every level, in each of your States and each of your districts, in reforming education. So I think something has been done.

On Head Start, you're absolutely right. Our coalition has been able to agree as a coalition that we need to fully fund Head Start by the year 2000. Some of us say that's far too long. We need to move from 20 percent gradually but surely so that a Head Start opportunity is available to every poor young person in the United States as rapidly as we possibly can.

The same is true on chapter I. Chapter I is not fully funded—the remedial program that the Federal Government has assumed responsibility for. We need to do exactly the same thing there.

In terms of JTPA, I have just said: it seems to me that that system, that public-private system has been proven, it works. But, we are continuing to work with only level funding—and by keeping it level-funded, we are continuing to let it go downhill.

And that is a very important way to train disadvantaged individuals for jobs. We're going to need every single person in our society over the next years to become productive workers and we need to provide an opportunity for those who have missed the first chance to get another one.

And, finally, let me end by saying I know you were very critical of Mr. Roberts T. Jones. I would say to you, Congressman Scheuer, and the committee, that I think the administration is coming along.

This whole work force training issue that I talked about, with the possibility of the Federal Government stepping up to this responsibility, to begin to talk about tax policy and other ways to help particularly smaller firms make the kind of investment that they need to make in workers in this country, I think there is a fruitful area to be worked on there, Congressman Scheuer.

And it seems to me again—let me just end this long testimony by saying to you I think these kinds of hearings make a very, very im-

portant impact on what we're trying to do in the United States. I believe we're making progress. Slow, uncertain, but progress.

Thank you.

Representative SCHEUER. Well I'm going to rise to a point of privilege, since Mr. Kolberg addressed me.

Mr. Kolberg, you said it all. You absolutely said it all. And what pleases me, but utterly frustrates me at the same time, is that the Job Training Partnership Act works. It's in place. It's operational.

We don't have to have a conference next spring to figure out what works, how do we achieve a nexus between corporate leadership and school leadership, how do we segue kids from the school experience to the work experience. You're doing it now and it works.

And I am absolutely at wit's ends to understand how we can be putting ourselves in a model where there will be a conference next spring and a report a year from now. You're doing it and by God we ought to build on it. And I congratulate you for your testimony.

Senator GORE. Let me say, before you leave, Mr. Kolberg, that I appreciate your appearance here today and the appearance you made 6 years ago——

Mr. KOLBERG. Is that how long ago it was?

Senator GORE [continuing]. In the series of hearings that I chaired in the House on these same questions and, indeed, you made a great contribution there.

Your suggestion for a tax credit in the corporate income tax for expenditures on training is an interesting one. I wonder if you'd be willing to couple that with a 1- or 2-percent increase in the corporate income tax rate which could be used to fully fund Head Start?

Mr. KOLBERG. Senator Gore, I'm not at liberty for my organization to come out for a tax increase today——

Senator GORE. Well, you're at liberty to come out for a tax decrease.

Mr. KOLBERG. Senator Gore, let me just say in our society—and I've heard you go through it again this morning, we have ourselves pretty much in a bind with tax policy—we meet ourselves coming and going, don't we. We, all of us, want to keep taxes exactly where they are and yet all of us have our own ideas about what government needs to do, where we can save, et cetera. I could give you my own personal list of things that I think the Federal Government could do less of in order to do this.

I might even believe personally that a tax increase is important but I can tell you that my membership would not—the membership of the organizations of business don't believe in a tax increase, the President certainly doesn't.

I know that's not helpful——

Senator GORE. That's all right.

Congressman Obey.

Representative OBEY. I simply want to apologize to the panel because I have to leave.

I would simply say to Mr. Kolberg that I'm happy to see him here again. It brings back fond memories of when he was part of another administration and this town was somewhat more serious about dealing with these problems than it is today.

I would also simply say that with respect to taxes or benefits, what I long to hear more than anything else is for someone to come into my office sometime and propose a tax cut for somebody else, not themselves, and a tax increase on themselves rather than somebody else, to pay for the programs that we're talking about. That is when we will truly reach the situation in which people really care about what it is they're talking about.

Thank you very much.

Senator GORE. Thank you, Congressman.

And thank you, Mr. Kolberg, we hope you make your plane.

We appreciate the patience of our final three witnesses here today. Why don't we go next, Mr. Knight, to your presentation? And again if you could summarize it we would appreciate that. Please proceed.

STATEMENT OF ROBERT KNIGHT, PRESIDENT, NATIONAL ASSOCIATION OF PRIVATE INDUSTRY COUNCILS [NAPIC]

Mr. KNIGHT. Thank you, Senator Gore. I am Robert Knight, president of the National Association of Private Industry Councils.

In trying to scribble down a few things to mention briefly given the lateness of the hour, I think there are three points that I would like to make.

The first is that while we talk a great deal about public-private partnerships, the Private Industry Councils are a federally authorized partnership that are working in 630 communities around the country, including some 10,000 business volunteers and about 8,000 volunteers from education, organized labor, community-based organizations, vocational rehab, and other organizations and agencies that are key to the task that the committee is considering today.

I hope that we would continue to look, therefore, at Private Industry Councils as incubators or R&D projects. They don't have all the answers but they're clearly one place that the Congress and the administration need to look for what's working and what isn't in terms of how we link the needs of private employers to the goals and objectives of public agencies.

Second, I think Bill Kolberg covered the fact that the Job Training Partnership Act by and large is working. I would note, as I travel around the country, that Private Industry Councils—and I'm speaking now of the business volunteers and the other members of the PIC's, not the staff—increasingly are coming face to face with the very crisis we're talking about.

And they come across it in two ways: One is as employers themselves and two is in how to effectively utilize Federal job training money, or State and local job training money, for that matter.

Increasingly, the problem is no longer to convince employers to try our people, the problem is to find people and give them the education. There are plenty of employers who are ready to hire able and motivated individuals.

So the problem is changing. I would note that the Job Training Partnership Act is up for amendment at this very time in both the House and the Senate. Many of the changes that are being proposed would bring us into closer alignment with the realities; there are some that we might have disagreement about but I think in

the main what you'll find is that at the local level people have already had to make changes in who they serve and how they serve them, just because of the nature of who's out there and what employers need.

My third point would be that I think we have enough programs. There were two reasons that Private Industry Councils were established: one was to try to bring the business community in as a fuller partner in utilizing the people who come out of public job training programs.

The other was to try to bring the PIC as a partnership itself, and bring all the key actors into a situation where they would work together and coordinate programs more effectively.

My last point, which is covered in my prepared statement, would be that I think rather than focus on programs we increasingly have to look at putting together community forums. Whether we call them PIC's or we get on somebody else's turf and we use another name may not be the point, but we have to put together the kind of strategic planning bodies at State and local levels that will involve business, education, organized labor, and others.

I believe that PIC's are a good starting point. I also believe that we have not done enough to document both the successes and the failures of this current system and that we spend very little investment on actually improving the volunteer process that is taking place here.

In conclusion, I would just make a couple of other points on how difficult it is. There is currently a bill, H.R. 7, in the House, a proposal to change the various State councils authorized by State and/or Federal statute and to create one human investment council. I think this is a very good and positive idea.

It now appears that this idea, a fairly simple one, is being attacked on many grounds basically arguing that the volunteers can't possibly handle or follow so many different programs. Well that may indicate that we have too many programs, but I think the main point is that it indicates that we continue to want to look to volunteers for the wrong things.

A State human investment council should be looking at broad policies, goals, missions, oversight roles for overall human investment strategies, not looking at individual programs. If we have the right goals in mind for what our volunteer councils can do, I think we can build on them and they will be an invaluable resource in addressing the problems that this committee has so wisely begun to look at.

Thank you, Senator Gore.

[The prepared statement of Mr. Knight follows:]

PREPARED STATEMENT OF ROBERT KNIGHT

Thank you, Mr. Chairman and members of the Committee. I appreciate the opportunity to testify at this hearing on "Crisis in the Workplace: The Mismatch of Jobs and Skills".

I am Robert Knight, President of the National Association of Private Industry Councils (NAPIC).

NAPIC is a non-profit, membership organization of private industry councils. Our mission is to support PIC and business leadership in fulfilling the goals of the job training system and to promote policies which strengthen public/private partnerships in addressing critical labor force issues.

NAPIC is the only national organization speaking on behalf of and serving the nation's Private Industry Councils. Our nation wide membership includes some 430 PICs and state job training coordinating councils (SJTCCs).

Mr. Chairman, your letter of invitation requested our comments on a broad range of issues related to the workforce of the next decade and into the next century. Due to the expert commentary of the many witnesses before the Committee and the time limit wisely imposed upon each of us, I will be prudent and limit my comments to the roles and potential contributions from the ten thousand business volunteers and several thousand education, labor, public sector and community volunteers who serve on our nation's some 630 Private Industry Councils.

From our vantage point, the emerging mismatch between jobs and skills can be approached from at least four perspectives. First, are the host of issues concerning K through 12 education, which also might include prenatal and preschool issues. Second are the issues and challenges before post secondary education, including very important matters of life long learning. Third, are the concerns with the skills gap as it relates to those with marginal attachment to the workforce -- those for whom targeted or "second chance" job training systems have been developed. Finally, we might look at the emerging mismatch from the perspective of employers.

Because PICs have focused on the targeted training aspects of these problems, I will largely confine my remarks to this realm. At the same time, I want to note that the various perspectives overlap, and PICs are grappling with these matters in all their complexity. For example, PICs are now responsible for implementing dislocated worker programs under Title III of the Job Training Partnership Act (JTPA) and PICs are active in a variety of efforts to strengthen public education.

Private Industry Councils were established pursuant to the Job Training Partnership Act of 1982. Previous to 1982, they had been implemented on a demonstration basis through the Comprehensive Employment and Training Act (CETA) Amendments of 1978. In short, we now have over ten years experience working with the PIC concept of a public/private partnership.

While the term "partnership" is today overused and misused to justify almost every policy and program around, the PIC experience provides the opportunity to study the contributions, as well as the limitations, of public policy and programs as developed through an actual, hands on, volunteer community institution.

Our experience thus far leads us to observe that PICs have been generally successful in improving program quality and employer responsiveness to public programs. Individual PICs have had notable success in coordinating programs and in public education improvement efforts. However, the jury is still out on whether PICs in their current configuration can provide both the strategic planning at the labor market level and the broad system coordination that is so desperately needed among public agencies and between these public efforts and the work of the private sector.

Labor market shortages and mismatches between worker skills and employer needs offer an unparalleled opportunity for PICs to play a constructive role in linking targeted job training programs with employers. While this goal was once driven largely by social conscience, it is now an economic necessity.

PICs find, for example, that employers will need to adopt new approaches to filling available jobs. Above all, they will have to look to nontraditional pools of workers and nontraditional ways of accessing these workers. Examples include recruitment of people with disabilities, welfare recipients, and older workers who are underemployed, unemployed or retired. PICs, working with JTPA, welfare JOBS and other funding sources, are ideally

suited to find private sector employment opportunities for these populations.

Furthermore, employers are finding it increasingly necessary to invest their own resources in basic skills training for entry level workers. Consequently, they are more open to working with schools and job training institutions that place an emphasis on competency based, basic skills development.

What have PICs learned as employers have begun to change their views on effective recruitment?

First, training programs for adult populations must be comprehensive. That is to say, the services offered must address the multiple barriers to employment of the student. It is our view that an effective job training, placement and retention strategy must include not only training to overcome skill and occupational deficiencies but also services for motivational problems, substance abuse, child care, transportation, housing and a host of other problems that may have to be resolved before successful integration into the workforce is possible.

Furthermore, job training programs must put a greater emphasis on basic skill education utilizing competency based approaches that are measured according to the entry level job requirements of employers.

Finally, PICs must work with employers to assist them in making productive investments in their workforce through basic skills education, responsive benefit programs,

and continuing education tied to upgrading.

What do PIC experiences suggest for the future of job training targeted to specific population groups?

Above all else, we do not need additional programs. We already have scores of programs, and even programs within programs. A catalogue of all the programs intended to serve, at least in part, "nontraditional labor pools" includes JTPA, which is in itself a series of programs, the welfare JOBS program, the Perkins Vocational Education Act, Adult Basic Education programs, the Job Service, various programs for in-school youth, older workers and other worthy programs that could go on for pages.

However, what is missing are the mechanisms that encourage, even compel, coordination at the state and local level. Many observers have suggested that Congress not only stop the proliferation of small programs, but even consider the consolidation of some existing programs. Yet, as we meet this morning, I know that there are a dozen or more new programs on the congressional drawing board. A few undoubtedly will be added to the arsenal of programs already available. Since it has proven difficult to stop this proliferation and impossible to consolidate existing laws, the only sensible solution is for the Congress to develop coordination mechanisms that will work.

In March, 1989, the JTPA Advisory Committee, on which I served, issued Working Capital: JTPA Investments for the 90's. In this report, the members of the Committee

noted that "... if properly coordinated, the resources available under a wide range of Federal programs can be deployed to expand the number of disadvantaged and dislocated workers served, and extend the range of services available to these individuals. In this era of budget stringency, particularly, we should no longer accept a fragmented, uncoordinated approach to the delivery of human services. It is inefficient, wasteful and frustrates the consumers of these services: both those who seek training and their potential employers."

Mr. Chairman, I respectively submit that a major challenge before the Congress and Administration, in terms of the crisis in the workplace, is that of moving beyond lip service to the goal of a comprehensive, effective and efficient human investment strategy. This current state of fragmentation and overlap has occurred at the federal, state and local levels. But the challenge is to find solutions, not to lay blame.

In my view, progress toward the goal of a broad based, integrated human resource delivery system in the United States must come on two fronts. First, we need leadership from the Congress and the Administration on the crucial role of employment and training in meeting the economic challenges that lie ahead. Second, we need to establish institutions at the federal, state, and local levels that can provide policy, strategic planning, oversight and evaluation of our efforts.

Progress needs to be made in structuring federal programs to encourage, and even reward, coordination. Relatively easy changes that could be made include those of establishing uniform planning and funding cycles, seeking private sector input through a

single mechanism, and creating standard definitions for common data elements. More complex tasks (with the potential for significant payoff) include establishing uniform eligibility standards where appropriate, utilizing inter-related performance measures, developing common outcome standards, and devising financial incentives that cut across traditional program boundaries. Some of these actions could be accomplished through executive branch initiatives; others would require legislative revisions.

Additionally, it strikes local volunteers in this field that a coherent federal mission will necessitate a new capacity on the part of federal agencies to translate national policy into usable guidelines for states and localities. Whether this could be accomplished through an interagency committee, as suggested in several quarters, or through other means, is a matter that the Committee might wish to explore.

Even more important, we need effective partnership institutions at the state and local levels. A state level institution is important because state funding and state agencies are an indispensible part of human investment strategies. We must have state level policy and planning if we wish to maximize the public investment.

In our judgment, the proposed state human investment council approved by the House of Representatives in H.R. 7, amendments to the Carl Perkins Vocational Education Act, are a positive step toward coordinated planning at the state level. The proposed council would replace the JTPA State Job Training Coordinating Council and other state advisory committees with a single, state-level coordinating body. Opposition to this change

has centered on the suggestion that the council would have too many programs to keep track of. While this argument may buttress the contention that Congress has enacted too many separate programs, it should be noted, more to the point, that this criticism is based on the notion that councils approve programs. What we need, however, is a state council that focuses on state human investment strategies. If we are to get past the problem of a program mentality, as noted above, we need to establish a state council that is considering missions, goals and objectives across the human investment dimension. Such a council would function as envisioned by the framers of this proposal.

Along these same lines, we need a local partnership body that can approach the Workforce 2000 challenge from a strategic planning perspective. After all, it is at the labor market level that services are delivered and people employed. It is at this level that we set missions, establish priorities, develop goals and objectives, and implement coordinated operations that yield a pay-off for our citizens and our employers. It is at the local level that a score of different programs becomes either an understandable set of services or a myriad of bureaucracies to be confronted.

It will come as no surprise to the Committee that I believe that the existing Private Industry Councils are the logical body to move local communities forward. PICs in theory, and most of the time in practice, include local leadership from business, education, organized labor, community based organizations, vocational rehabilitation, welfare agencies, the Employment Service, economic development and other key sectors of the community. PICs, at their best, are community forums where the needs and aspirations of those left

out of the labor market and the needs of employers can be discussed in an open fashion. PICs are business-led, but they draw indispensible vitality from the coalition of interests and viewpoints that they represent.

PIC volunteers know better than most the barriers to employment faced by the "nontraditional" pools of labor mentioned earlier. Because the unemployed increasingly are characterized by more than one barrier to employment -- from poor basic skills, to lack of credentials or work experience, to substance abuse, to housing and transportation problems, to child care needs, and the low self esteem that frequently accompanies these barriers -- PIC volunteers recognize the imperative need to coordinate education, social services, job training and placement and more, if we are to mount an effective challenge to these barriers.

But whether we choose to call this local body by the term PIC or by some other name is not really the point. What needs to be done to strengthen and institutionalize a local planning body is at the heart of the issue. Based upon our experience, we know that it must be characterized by (1) business leadership, (2)equivalent leadership from other sectors, (3) sign-off authority over at least some of the funds at the local level, (4) performance driven both internally and externally, and (5) grounded in a partnership relationship with appropriate elected officials.

We also must recognize areas for further refinement and growth. PICs may be too vested in one program -- JTPA -- creating turf battles in which the PIC is not perceived

as neutral or at least above the battle. Progress for a local planning body may require a broader funding base or an independent one. We need to understand how performance systems effect coordination. And, we need to learn more about the effectiveness of clear federal mandates upon the local planning process. For example, JTPA gives joint planning authority to PICs over local Employment Service plans. Yet, the planning process for these funds has changed in only a handful of places. We need to better understand why PICs have played only a small role in determining the shape and scope of a major institution in addressing the Workforce 2000 challenge.

In short, the PIC experience has not been adequately studied and documented. Federal research and development efforts should put a greater emphasis on understanding the policy making role of a community group and upon developing local leadership as appropriate.

The next step in PIC development may be taking place in New Jersey and Massachusetts. These states have established their PICs as regional employment boards, responsible for reviewing, approving and integrating the various job training programs that are funded within the community. The rest of the nation should benefit from these demonstrations, but we need a plan of action if we expect to do so.

In conclusion, I would repeat that we need to move from our current focus on programs to a focus on the development of labor market policies, planning and oversight. We need to develop and/or strengthen federal, state and local institutions that can

implement this task. We need to move on this front with all deliberate speed. The benefits for the country are clear: scarce resources can be more effectively utilized; the impact of successful, individual programs can be magnified; and the problems of individuals, families and employers can be more realistically addressed.

Mr. Chairman, this concludes my remarks. Thank you for the opportunity to testify. I would be happy to answer any questions.

Senator GORE. Thank you very much.

Our next witness is Rae Linefsky, senior vice president of the Federation Employment & Guidance Service.

Do you have a copy of your statement?

Ms. LINEFSKY. It's coming in the mail.

Senator GORE. All right. Please proceed. If you could summarize it, we would appreciate that.

Ms. LINEFSKY. Yes.

STATEMENT OF RAE LINEFSKY, SENIOR VICE PRESIDENT, FEDERATION EMPLOYMENT & GUIDANCE SERVICE, AND CHAIRPERSON, NATIONAL YOUTH EMPLOYMENT COALITION

Ms. LINEFSKY. My name is Rae Linefsky. I'm chairperson of the National Youth Employment Coalition, a decade-old membership organization composed of over 50 organizations from across the country who are involved in increasing education, employment and training opportunities for youth, especially those who are disadvantaged. We represent over 12 million young people.

I'm also senior vice president of Federation Employment & Guidance Service, a very large comprehensive not-for-profit human service agency located in New York City. We've been in existence since 1934 and each year this agency serves between 50,000 to 70,000 persons through a whole host of services.

We are involved with the unemployed, the physically and mentally disabled, our youth—they themselves make up between 5,000 to 7,000 per year—older workers, the displaced, the dislocated, the homeless, immigrants and refugees, dropouts and welfare recipients, those at risk of being unemployed or underemployed and the rest of the categories which might describe New Yorkers and the other areas where we work.

We are involved in training, retraining—perhaps we are the largest JTPA contractor in New York City—and, back in 1981, began an extensive nationally acclaimed dropout prevention program in New York City called Operation Success.

Our clients have, over the years, also been employers. Despite the fact that each year FEGS places between 6,000 to 8,000 people a year in unsubsidized employment, the relationship between the private sector or the not-for-profit sector and government needs to be fine tuned.

In recent years there has been, to the credit of our industries and businesses and those who represent our present and future workers, an increasing number of partnerships and programs which put companies in the limelight because of this new and well publicized thrust by the private sector, providing the sites, sometimes the dollars and the programs.

Across the country, and in fact with the assistance of many of the National Youth Employment Coalition's members, including my own organization, FEGS, new programs have sprung up in every city and State which attempt to bring together the expertise and the needs of the companies with that of the general population. However, some of the efforts are long on publicity.

Others are doing what should have been an on-going effort over the past two decades, but faded because there were workers, at

least in the short run, and there was an economy and an optimism that the United States would always have a work force at the top of the world and that nothing could stop us.

We all are now clearly aware that many of the predictions of the few, whom industry and some in government didn't want to listen to, are coming true. Today, that one-time optimism is being replaced with a new awakening. We have a mismatch between the needs of our industries and business and the skills and interests of our population. We have many job openings and yet millions are out of work. We have increased demands for workers for our lower level jobs as well as an increase for an educated skilled population.

FEGS, many years ago, recognized that a role we needed to play was one of a broker between the private sector and the population who needed to be served so that these people could become productive workers in our economy. We needed to find the industries that some were writing off as not worth pursuing. We needed to reinculcate our young people with the notion that all work for the future was not just being a computer programmer.

As a result, we started the New York City Furniture Institute as the training arm for the furniture industry in the New York Metropolitan Area. That was at a particular time when people said furniture manufacturing could not possibly be alive in New York City.

And what we found we think is true across the country: the reason that furniture manufacturers were leaving New York City had less to do with the tax base and EPA regulations but they couldn't fill their contracts and they couldn't fill their contracts because they didn't have workers.

We are also filling the same kind of role in the jewelry manufacturing industry in New York City.

Our new Building Services Institute is a new partnership which has broken new ground, with the involvement, advice, experience and money from the Bronx Realty Board, Local 32E and FEGS.

Major appliance repair companies, small and large, gathered together to help support scholarships for training at our trades and business school, which is one of the few not-for-profit trades and business schools in New York State and the cost of these scholarships are far cheaper than running ads in the local papers.

But what have we learned from all this? Making partnerships is relatively easy. Even schools can learn to work with private businesses with all kinds of proven models, although it is often effective to use translators, like the voluntary not for profit, as a means to a quick understanding of the differences and needs and goals of the players and a way to design and implement a program quickly and creatively.

We have also learned that for almost a decade the onus of creating a means to make these thrusts happen have not been because of the Federal Government. Throughout the country new ideas and new mechanisms and often, perhaps most importantly, new dollars have come from local sources and local initiatives.

New York State, for instance, wanted to prove prewelfare reform, prejobs, that there was a population out there, though on welfare, who, if given an individualized approach, a host of options, vocational and personal, and appropriate support, could and would choose to go off welfare and work.

They did it. FEGS is pleased to run one of the most comprehensive employment opportunity support centers, or CEOSC's, where over 3,000 people voluntarily have come through our doors in the past 2 years. But they did it with their State tax dollars.

We must reintroduce the concept of career exploration to our young people as early as the primary grades. I'm sure that when those of you on the panel were young, from your elementary school you went to visit what was my version of the bread factory.

I grew up in Philadelphia; you went to the bread factory to visit. And when you went to the bread factory, people were shown not only how bread is made, but what their jobs are. We saw people in an everyday situation doing their job.

That's not to say that any of us in the end may or may not have done something that we saw that day, but I don't know whether you realize that young people throughout this country, primarily in urban areas, never visit any bread factory. They never have an opportunity for any kind of career exploration.

And it must be reminded that career exploration is very different from work and work skills readiness. All the talk about work competencies does not necessarily mean career exploration.

We also must look at our young people who actually graduate from high school. In many respects, they are the foundation of most of the economies in our towns and cities and in many respects they're also the ones that you can never help once they leave school. Because the way most funding goes, in reality they're not poor enough or they're not out of work enough or they're not a whole lot of other kinds of things—and yes, they've done what a lot of people have not been able to do, get a high school diploma.

Somehow we need to be able to look at our funding streams and not forget about those who are working potentially or probably at low-level jobs. They already have a particular motivation and a work ethic. Let's not forget about them.

In the name of local decisionmaking and the positive elements of local control, the Federal Government has all but washed its hands of new dollars. It is a time when the Federal Government needs to take the responsibility to look at the whole population and the whole economy. It is now the time to create a new base, a new partnership.

Business, industry, the schools, the voluntary not-for-profit agencies, all know the words, we all know them: compacts and partnerships. Now, let's make a new compact, a new partnership. The Federal Government must join—not only in name or publicity but with commitment.

I know that you all know that there's a health professions crisis out there. Do you realize that part of the problem is not only who will pay for the technical education of the interested but that there are thousands, if not millions, who would be our future health workers but they are not prepared today for the rigors of technical training. They may need day care for their children. They may need test-taking skills; support during the long road.

We're pursuing a preparatory institute concept, one that we think is a model which can be used for many different kinds of industries.

Our discussion here today has always been about the profitmaking companies and their needs. If you look at the kinds of people who work for an organization like I do or the kinds of people who work for 70001, you must realize that today we can't find people out there who are interested in working in human services of any kind.

And so when we talk about creating a way in which we can improve the work force, please do remember that you need to be able to find people to help the people be able to get into this work force.

I know that you know many of our industrial areas can't find metalworkers or toolmakers or diemakers. I'm not even sure that most of the folks out on the street even know what either of them are. I know that you know that the mismatch is not only people to jobs but also jobs to people.

As the problems of our work force worsen, the Federal Government must take a lead. Presumably the Federal system is an overview of the whole country which most on the local level cannot have because their mandate is to work with the local problem.

You cannot talk about the problem of our filling more jobs without talking about the problem of illiteracy or the need for Head Start. How can we talk about increased productivity without talking about day care or after school and vacation activities for the children of the workers? How can we talk about making the grade internationally if we're not talking about the need for English classes for our foreign born?

For example, it is anticipated that in the 1990's that the majority of people living in New York City will in fact be foreign born.

How can you talk about all this without job-related English while they're learning job skills? How can we talk about the role of business and industry without talking about the interlocking social, educational, vocational, and economic needs of our country?

It is the time for an integrated, interdependent, and coordinated approach to looking at our present and future work force.

There must finally be a plan at the highest level which coordinates funds needed: for a skilled work force, JTPA, voc ed, day care, and economic development.

The role of business and industry is to continue to do what some have begun to do very well, to not confuse a small program with major change, to engage the small businesses and to help them find a way to provide what is needed so that they can get their workers and to maintain a stable community, and to demand that the partnership—with a capital "P"—must include the schools, the not for profits, the local initiatives of city and State, businesses and industries, and the Federal Government.

It behooves that the last partner mentioned, the Federal Government, understand that it has a critical and significant role, a role of leadership, that cannot be underscored enough, that it also has a responsibility to bridge and integrate resources and that it has a mandated commitment, not only in supportive terms but also monetarily to make this integration possible, and quickly.

Thank you.

[The prepared statement of Ms. Linefsky, together with an attachment, follows:]

PREPARED STATEMENT OF RAE LINEFSKY

Hello, my name is Rae Linefsky. I am honored to have the opportunity to have a few moments to discuss some of my views. I am the Chair of the National Youth Employment Coalition, a decade-old membership organization, composed of over fifty organizations from across the country, who are involved in increasing education, employment and training opportunities for youth, especially those who are disadvantaged. We represent over twelve million young people.

I am also Senior Vice President of Federation Employment and Guidance Service (F.E.G.S.), a very large, comprehensive, not-for-profit human service agency which has been in existence since 1934. We are located in New York City and each year this agency serves between 50-70,000 persons through a whole host of services. We are involved with the unemployed, the physically and mentally disabled, our youth (between 5-7,000 per year), older workers, the displaced, the dislocated, the homeless, immigrants and refugees, dropouts, welfare recipients, those at risk of being unemployed or underemployed and the rest of the categories which might describe New Yorkers and the other areas where we work. We are involved in vocational assessment, career development services, training, retraining, and back in 1981 we began an extensive nationally acclaimed dropout prevention program in New York City - Operation Success.

Our clients have over the years also been employers. Despite the fact that each year F.E.G.S. places 6-8,000 people per year in unsubsidized employment, the relationship between the private sector, the not-for-profit sector and government needs to be fine tuned.

In recent years there have been, to the credit of our industries and businesses and those organizations who represent our present and future workers, an increasing number of partnerships and programs which put companies in the limelight because of this new and well publicized thrust by the private sector who are often providing the site, sometimes the dollars, and the programs. Cross the country, and in fact with the assistance of many of the National Youth Employment Coalition's members, including my organization F.E.G.S., new programs have

sprung up in every City and State which attempt to bring together the expertise and needs of the companies with that of the general population.

However, some of these efforts are long on publicity, others are doing what should have been an ongoing effort over the past two decades, but faded because there were workers, at least in the short run, and there was an economy and an optimism that the United States would always have a workforce at the top of the world and that nothing could stop us. We are all now clearly aware that many of the predictions of a few, whom industry and some in government didn't want to listen to, are coming true. Today that one-time optimism is being replaced with a new awakening. We have a mismatch between the needs of our industries and businesses and the skills and interests of our population. We have many job openings and, yet, millions are out of work. We have increased demands for workers for our lower level jobs as well as an increase for an educated, skilled population.

F.E.G.S., many years ago, recognized that a role we needed to play was one of a broker between the private sector and the population who needed to be served, so that these people could become productive workers in our economy. We needed to find the industries that some were writing off as not worth pursuing; we needed to reinculcate our young people with the notion that all work for the future was not just being a computer programmer! As a result, we started the New York City Furniture Institute as the training arm for the furniture industry in the New York metropolitan area at a time when most said that that industry was dead in New York City; we are the same to the Jewelry Manufacturing industry. Our new Building Services Institute is a new partnership which has broken new ground with the involvement, advice, experience and money from the Bronx Realty Board, Local 32E and F.E.G.S.. Major Appliance Repair companies, small and large, gathered together to help support scholarships for training at our F.E.G.S. Trades & Business School, one of the few not-for-profit Trades & Business Schools in New York State - the cost of those scholarships

is far cheaper than running ads in the local papers.

But what have we learned from all of this? Making partnerships is relatively easy; even schools can learn to work with private businesses with all kinds of proven models; although it is often effective to use translators, like the voluntary, not-for-profit agency, as a means to a quick understanding of the differences in needs and goals of the players and a way to design and implement a program quickly and creatively. We have also learned that for almost a decade the onus of creating a means to make these thrusts happen have not been because of the Federal Government.

Throughout the country, new ideas and new mechanisms - and often, perhaps, most importantly, new dollars have come from local sources and local initiatives. New York State, for instance, wanted to prove, pre-Welfare Reform, pre-JOBS, that there was a population out there, though on Welfare, who if given an individualized approach, a host of options - vocational and personal -, and appropriate support, could and would choose to go off welfare and work. They did it; F.E.G.S. is pleased to run one of those Comprehensive Employment Opportunity Support Centers (CEOSC) where over 3,000 have come through our doors in the past two years. They were right. But they did it with their State tax dollars.

Also we must reintroduce career exploration to our young people as early as the primary grades. We must stop confusing work readiness skills with career exploration. Just because someone learns to get to work on time and learns to deal with a boss, doesn't mean this young person has any idea about what career interests and opportunities they might have.

We must also look to our young people who actually graduate from high school. They are the foundation of our work force in most towns and cities and yet little dollars are available to train this group if their education was less than adequate for moving up in the workplace.

In the name of local decision-making and the positive elements of local control, the

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Federal government has all but washed its hands of new dollars. It is a time when the Federal government needs to take the responsibility to those in minimum jobs and look at the whole population and the whole economy. It is now the time to create a new base, a new partnership.

Business, industry, the schools, the voluntary not-for-profit agencies all know the words: compacts, partnerships. Now let's make a new compact, a new partnership - the Federal government must join, not only in name, with publicity, but with commitment.

I know you all know that there is a health professions crisis out there. Do you realize that part of the problem is not only who will pay for the technical education of the interested, but that there are thousands, if not millions, who would be our future health workers, but that they are not today prepared for the rigors of technical training, may need day care for their children, test-taking skills, support during the long road? I know that you know that many of our industrial areas can't find metal workers, or tool and die makers. I know that you know that the mismatch is not only people to jobs, but also jobs to people.

As the problems of our workforce worsen, the Federal government must take a lead; presumably the federal system has an overview of the whole country which most on the local level cannot have because their mandate is to work with the local problem. You can't talk about the problem of our filling jobs without talking about the problems of illiteracy or the need for Head Start for many more; how can we talk about increased productivity without talking about day care or after-school and vacation activities for the children of the workers; how can we talk about making the grade internationally if we are not talking about the need for English classes for our foreign born and job-related English while learning job skills? How can we talk about the role of business and industry, without talking about the interlocking social, educational, vocational and economic needs of our country.

It is the time for an integrated, interdependent and coordinated approach to looking at our

present and future workforce. There must finally be a plan, at the highest level, which coordinates funds needed for a skill work force, e.g. JTPA, Vocational Education dollars, literacy for youth and adults, ESL, day care, economic development, etc.

The role of business and industry is to continue to do what some have begun to do very well; to not confuse a small program with major change, to engage the small businesses and to help them find a way to provide what is needed so that they can get their workers and to maintain a stable community; and to demand that the partnership, with a capital P, must include the schools, the not-for-profits, the local initiatives of City and State, businesses and industries and... the Federal Government.

It behooves that the last partner mentioned, the Federal Government, understand that it has a critical and significant role, a role of leadership, that cannot be underscored enough, that it also has a responsibility to bridge and integrate resources, and that it has a mandated commitment, not only in supportive terms, but also monetarily to make this integration possible - and quickly.

Thank you.

National
Youth Employment
Coalition

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SOME FACTS ABOUT THE NATIONAL YOUTH EMPLOYMENT COALITION

BACKGROUND & MISSION

The National Youth Employment Coalition is a nonprofit membership organization composed of agencies from many different backgrounds. All share a common interest: increasing employment, education and training opportunities for America's youth, especially those who are disadvantaged.

Founded in 1979 by leaders in the field of youth employment, the Coalition strives to respond to the costly and corrosive problem of youth unemployment by improving programs and policies at the local, state, and national levels. In 1989, members of the Coalition recognize that to improve youth employment opportunities necessarily requires addressing a range of issues affecting many of our youth, including substance abuse, literacy, school failure and drop-out, teen pregnancy, foster care, poverty, crime, housing, health, and immigration. The membership of the Coalition continues to broaden. Today more than fifty agencies across the country work together to effectively address issues of youth employment.

OBJECTIVES

To improve the public's understanding of and support for youth employment programs and initiatives.

To serve as a clearinghouse of information and as a catalyst for cooperative ventures among Coalition members, voluntary organizations, the education system, and the private sector.

To analyze the impact of present and proposed policies upon the development of a comprehensive youth employment policy.

ACTIVITIES

The National Youth Employment Coalition seeks to increase employment and training opportunities for youth through a program of public information, resource sharing, legislative and policy analysis, and the encouragement of collaborative ventures. Headquartered in New York City, the Coalition is directed by a ten-member Executive Committee, a full-time staff, and guided by the interests and concerns of more than fifty organizations nationwide.

Public Information

While the problems of "at-risk" youth may at times seem intractable, we have learned many effective strategies over the years for turning lives around. Increasing public awareness

about the problems of disadvantaged youth and their possible solutions is carried out by the Coalition through press conferences, roundtable discussions, publications, and a monthly newsletter.

Resource Sharing

In a time of scarce funding (both public and private) for social welfare needs, organizations can benefit and receive support by sharing resources with other organizations working toward a common goal. The Coalition serves as a network for the sharing of resouces in the field of youth employment and training. One Coalition priority is the dissemination of the latest research findings. A number of Coalition members are at the forefront of the research effort into "what does and does not work" in youth employment. The Coalition is able to reach an audience of thousands of youth employment professionals through its network of members and affiliates, providing frontline service providers with information beneficial to their efforts.

Policy and Legislative Analysis

In 1982, the Job Training Partnership Act (JTPA) became law and now serves as the centerpiece of federal efforts in the field of employment and training. JTPA mandates state and local involvement in partnership with business and industry to train eligible youth for employment. JTPA funds are contracted out to community-based agencies to provide training services. The Coalition has served as a source of information about the JTPA system, analyzing the impact of present and proposed changes in federal job training regulations.

Many other legislative issues besides JTPA directly affect youth. The Coalition's Policy and Legislative Analysis Task Force in Washington, D.C. monitors research, public policy, and legislation and advocates to policymakers on current legislative and regulatory issues affecting youth employment. The Task Force represents the point of view of frontline service providers--those youth professionals who actually use federal funds to deliver employment and training services to disadvantaged youth.

Collaborative Ventures

The National Youth Employment Coalition encourages the development of local youth employment coalitions around the country. Local coalitions are a collaboration of community-based agencies in a city, state, or region all working under the same local conditions. These local coalitions allow agencies to work collaboratively to solve local regulatory problems in the administration of funds, build up networks of client referral for services not provided by a particular agency, and disseminate the latest information pertinent to their communities' unified efforts in employment and training. By combining their efforts, resources, and knowledge in a local coalition, community-based agencies can enhance and improve the services they provide to their clients.

The first local coalition was formed in New York City. Using that as a model, the National Youth Employment Coalition has provided technical assistance to form additional local coalitions in Los Angeles, Seattle, and Utah. Other coalition-building efforts have been launched in cities including Chicago, Atlanta, Boston, and San Francisco.

Other Activities

The Coalition's members meet several times each year to discuss the present and future activities of the Coalition, share information about their respective agencies' efforts, and discuss current youth-related issues. In conjunction with these meetings, roundtable discussions are held on topics pertinent to youth employment. Past discussions have been on improving JTPA, job training efforts in other countries, and dropout prevention. Coalition- sponsored roundtables frequently feature guest speakers from the employment and training professional community, business and industry, and government.

The Coalition by virtue of its network of youth service providers and its access to more than 12 million young people collectively is frequently called upon to help on special projects. In recent years, NYEC has worked with video production companies to subsidize and distribute AIDS education materials to schools, hospitals, youth employment programs, and other community-based organizations that reach youth. The Coalition also helped produce and distribute a non-partisan voter registration curriculum and poster for use in thousands of youth-serving programs all across the country. And in conjunction with the New York City Youth Employment Coalition, NYEC aided in the design and implementation of a special interagency program linking drug treatment services with employment and training services for disadvantaged New York City youth.

FINANCIAL INFORMATION

Support for the Coalition is derived from three sources: membership dues, grants from corporations and foundations, and government contracts, including the U.S. Department of Labor. Our private sector contributors have included:

American Express Foundation
The American Stock Exchange
Charles Stewart Mott Foundation
Citibank, N.A.
Ford Foundation
General Mills
Hershey Foods Corporation
Manufacturers Hanover Trust
The New York Community Trust
The Revson Foundation

PUBLICATIONS

Approaches to Building Local Youth Employment Coalitions, 1986.

Who We Are, What We Do: A Directory of Member Services and Resources, 1988.

JTPA and High-Risk Youth: A Guide to Effective Employment and Training Programs, 1989.

Best Practices: Corporate Partnerships for the Employment and Training of Disadvantaged Youth, 1989.

For Further Information, Call or Write:

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Rae Linefsky, Chairperson
Linda R. Laughlin, Ph.D., Executive Director
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4/89

NATIONAL YOUTH EMPLOYMENT COALITION

VOTING MEMBERS

Alternative Schools Network (Chicago)
American Youth Work Center
Bay State Skills Corporation
Boys Clubs of America
The Center for Population Options
Children's Defense Fund
Child Welfare League of America
Cities in Schools, Inc.
Empire State Organization of Youth Employment Services (ESOYES)
Federation Employment and Guidance Service
Girls Clubs of America, Inc.
Grand Street Settlement
Institute for Educational Leadership
Jobs for the Future - Bank Street College of Education
Jobs for Youth, Inc. - Boston
Jobs for Youth, Inc. - Chicago
Jobs for Youth, Inc. - New York
Joint Action in Community Service, Inc.
Los Angeles Regional Coalition of Service Providers
Maine Bureau of Employment and Training Programs
National Association of Counties
National Association of Private Industry Councils
National Association of Service and Conservation Corps
National Child Labor Committee
National Committee for Full Employment
National Council of La Raza
National Crime Prevention Council
National Institute for Work and Learning
National Network of Runaway and Youth Services
National Puerto Rican Forum
National Resource Center for Youth Services - The University of Oklahoma
National Urban League, Inc.
National Youth Practitioner's Network - Brandeis University
New England Community Action Association
New Ways to Work (San Francisco)
New York City Youth Employment Coalition
OICs of America, Inc.
70001 Training & Employment Institute
United Neighborhood Centers of America, Inc.
Utah Youth Employment Coalition
Vocational Foundation, Inc.
Washington State Association of Employment & Training Professionals
Y.M.C.A. of the U.S.A.
Youth Action Program - New York
Youth Network Council of Chicago - Illinois Collaboration on Youth
Youth Service America

ASSOCIATE NON-VOTING MEMBERS

Manpower Demonstration Research Corporation
National Alliance of Business
New York State Division for Youth
Public/Private Ventures
Youth Action (Washington, D.C.)

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Children's Defense Fund

Structure & Membership:
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Public Information:
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National Child Labor Committee

Immediate Past Chair:
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OICs of America

Executive Director:
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Members

Alternative Schools Network (Chicago)
American Youth Work Center
Bay State Skills Corporation
Boys Clubs of America
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Child Welfare League of America
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YMCA of the U.S.A.
Youth Action (Washington, D.C.)
Youth Network Council of Chicago/Illinois Collaboration on Youth
Youth Service America

Senator GORE. Thank you very much. We appreciate that.

Our final witness is Mr. Owen Peagler, chairman of the board of 70001 Training & Employment Institute.

Thank you so much for coming today and thank you for your patience, we appreciate it.

STATEMENT OF OWEN PEAGLER, CHAIRMAN, BOARD OF DIRECTORS, 70001 TRAINING & EMPLOYMENT INSTITUTE

Mr. PEAGLER. Thank you, Senator Gore and Congressman Scheuer. I must say that I'm used to being last and I usually make some good use of that position. You know, the cliche that the mind can only absorb as much as the seat of the pants can endure is in operation here, and so I'm going to commend this report which you have to you, and I stand by everything in it. But a lot of that has been said, better than I can say it.

But there's a point of view, I guess, the organization that works not in the total fabric of the problem but one area: the 70001 has worked and has been successful over a 20-year period, has survived.

70001 started out as a dropout recovery program funded by the private sector, by a company—and all that's in there. But what has happened is that 70001 put together a program of motivation, of education, and of preemployment training for high school dropouts—and not the cream of the crop but the real hard core kids, the kids who are disconnected. And it has been successful over the years or we wouldn't be there and we wouldn't be growing.

The fact is that when we talk about motivation of these young people, they are already motivated kids. It's just that they are misdirected: they are motivated to sell drugs, they're motivated to steal cars, they're motivated to do an awful lot of things. And 70001 has developed ways to redirect that motivation.

Now, I'm not going to go into all that, but the fact is—please accept my assurance—that it's working. But one of the most interesting things that has happened—and I'm a volunteer and I just get my jollies out of working with this organization:

Because a dedicated staff took those things that worked with high school dropouts and, with a grant from a foundation, took those ingredients and worked them into a dropout prevention program, worked out a curriculum and a program, an actual curriculum and took it to the schools.

That program is in—this is the first school year that—I wish I had the number, but we must be in 25 target, trial schools. And the interesting thing is that the school people, traditional educators are enthusiastic about it. This is change. These are systemic changes for education. And they were accepted.

And the interesting thing is, and the point—if I'm disjointed, it's because there are so many points that I want to address in a very short time—that pouring money down the present system doesn't make sense. We have to have changes in the educational system and in our job training system that really works.

And the things that are working are there, Congressman Scheuer, you're correct. We don't have to go out and do a lot more research, darn it. It's there. And somewhere along the line we have to pull together the means to do what we know will be successful.

But the thing of it is it's like foundations: foundations will fund you for something that's new and innovative. But if you want to take one of the things that they've shown as innovative and ask them for some money, they'll say we have already done that. The fact is, we need people to say we're going to fund those things that we know we can do.

We asked the question about do we have the will to do the work and why aren't we doing what we know we have to do. I will tell you that the people we're talking about, the adult illiterates and so on, aren't seen. They're invisible.

And the fact is, Congressman Scheuer, you—as I recall when I was in New York you were very, very much involved in providing the kind of incentive for not only the war on poverty but the whole poverty aspect. And you know that those people were invisible.

What happened in the drug war? Drugs were not a major problem until they got into our neighborhood. Now it's a crisis. Frankly, the problems of disenfranchised youth, minorities and so on, the problems that they face aren't going to be a crisis until they affect us economically and in some other way that hurts. It's finally beginning to happen and that's the reason why we're going to have the will to tackle the problems.

The homeless you can see. We can't any more go through Harlem and you pull the shades down. You didn't have to see that. Now those problems are downtown.

And I think we're at that point with education and employment. The roadrunner is out beyond the cliff and he's about to fall and the dust is going to rise. I love that little poof as he hits the bottom of the canyon. I hope we don't go that far.

I think all of the background material that goes with these comments are in my prepared statement. I commend it to you. 70001 is an organization that is working on very, very definite programs that will change systems. But I think we have to find the 70001's, the jobs for America's graduates, the others that work. And many of these programs, including 70001, are JTPA sponsored, they are local programs sponsored by local organizations and private industry councils.

So I'm suggesting to you an idea that take the 70001's, the programs that are there and move ahead. I think we're ready to move and I commend those ideas to you.

Thank you.

Senator GORE. Thank you very much.

[The prepared statement of Mr. Peagler, together with an executive summary, follows:]

PREPARED STATEMENT OF OWEN PEAGLER

Mr. Chairman and members of the Joint Economic Committee, thank you for the opportunity to appear before you today to testify in celebration of National Job Skills Week. My name is Owen Peagler, and I am the Chairman of the Board of Directors for 70001 Training & Employment Institute. 70001 is a national, nonprofit organization committed to providing basic skills, employment readiness skills, life skills and motivation to our nation's at-risk young people. First and foremost, Senator Gore and Representative Martinez and all members who co-sponsored H.J. Res. 195, thank you for making National Job Skills Week a reality for the forth year in a row. Those of us in the employment training and education fields deeply appreciate the fact that you are openly demonstrating your commitment and attention to these critical issues.

The theme of today's hearing, "Crisis in the Workplace: The Mismatch of Jobs and Skills," encompasses the essence of how we view "job skills" today. The topic is not only timely, but crucial. I will spend a few minutes this morning discussing the future labor market and labor pool especially with respect to at-risk youth. I will also illustrate how legislators, employment and training professionals, and business people can effectively respond to these issues. I hope my testimony

will solidify your understanding of the importance of developing our nation's human capital and altering our training system to meet the needs of the competitive economy.

Economic growth in our nation has reached a critical point. In the next few years, new jobs will be created at such a rate that there will be a job for everyone who wants one. Our labor pool is simultaneously shrinking, thus we will experience a labor shortage. Specifically, it is projected that there will be 20 million jobs created by the year 2000, and only 15 million available workers. On the surface, it seems that workers will have an advantage over employers because their manpower will be in demand and the supply will be low. Unfortunately, the members of the labor pool lack the skills to perform, and the new jobs in the labor market will demand higher skill levels. Simply stated, we will experience incongruence between jobs and skills. This will seriously effect our economy and our ability to compete with other nations.

In the future, jobs for people who cannot read and write will be extremely scarce. Jobs for high school dropouts -- even those with good reading skills -- will be hard to come by. In the past, an employer had his or her pick of a dozen applicants from which to choose the "perfect" entry-level employee. That person would begin at the bottom of a company, learn the trade and advance up the career ladder. The entry-level employee needed to come to work prepared to learn, and with a strong back, but did not necessarily need to have skills beyond that.

Today, the path to success is quite different. From the start, employers need employees that can read, solve problems, communicate with customers, and understand instruction, in addition to being eager to grow with a job.

To make matters even more difficult, many of the 15 million available workers are not the "typical" employees that U.S. business is accustomed to employing. The national birth rate is declining, especially among white Americans, so there will be fewer white entrants. Thus minorities will comprise a higher proportion of the new entrants in the labor force. There are a greater number of women in the workforce, including women who are single heads-of-households. The dropout rate remains at about 25%, so a sizeable amount of the new employees will not have a high school diploma. 23-60 million people in the United States are functionally illiterate. These people represent tomorrow's labor pool.

So what happens when there are ample job opportunities to provide full employment, but no skilled workers to fill them? What happens to those workers who are out of work and do not have transferable skills? What happens to the employers who can't run a business without productive workers? The answer is economic stagnation, social chaos, more tax dollars spent on welfare and the prison system, increase in drug use and sales, and more and more families become homeless. Jobs will be plentiful, and they will be challenging, but the American labor force is going to be unprepared to fill them.

One way to react to this dilemma is to relax the immigration policy and fill new jobs with skilled workers from other countries. It may be less expensive to bring skilled workers into this country than it will be to pay for the education and training of the workers we have on our streets, but imagine the social implications of this for the people who would be neglected. Relaxing the immigration policy will be one method employed to address the problem, but we need to balance it with other methods including training the individuals who reside in America, but have not benefitted from its opportunities. In addition, when we allow more immigrants to enter the United States, we must be aware that they will initially need some type of training and support, so this "easy" solution, may be deceptive.

Another answer that we have seen in the past is programs that provide quick placement and services to the job ready. This can be quite effective, but this "band aid" approach only works with a limited group of individuals. If it is applied to an individual who has not obtained sufficient training, he or she may fail, again causing loss of productivity for the private employer, a poor reference for the training agency, and a negative work record for the program participant. This low cost, quick placement method involving the most job-ready has weathered criticism under the Job Training Partnership Act.

Both methods -- relaxing immigration and providing job placement assistance -- ignore the core issue. They overlook the fact that the labor market needs every individual to work - even those people who at one time were considered expendable. The economic reality is that our nation cannot afford to ignore anyone.

While it may seem I have painted a dismal picture of our social and economic future, I know that you have heard this message before. I come before you today armed with encouraging thoughts and solutions. There are ways of addressing these problems and bridging the skills gap. There are methods that show promising results. There are thousands and thousands of success stories.

Through my experience with 70001, I have had the opportunity to meet the at-risk young people that 70001 local programs educate, train, motivate and place in jobs. From this experience, I can tell you a few things about the entry level workers of tomorrow. The lessons I have learned from the 70001 program participants can be generalized to anyone who has been overlooked as potential "human capital". These lessons were not apparent in the grim conclusions drawn concerning the workforce 2000.

Disadvantaged young people, a major sub-group of tomorrow's workers, contrary to popular opinion are indeed motivated. At one point in their lives, they may be motivated to sell drugs, have a baby, belong to a gang, skip school, and engage in other activities that

are undesirable by society's standards. Programs directed toward them are not a waste of time, energy and money because they often help young people re-direct their motivation into more constructive pursuits.

The other lesson I learned from my contact with these young people is that they want the exact same things from life that you and I do. They want to feel like they belong, they want happiness, they want to be self sufficient, they want to have control over their destiny, and live with dignity.

I am sharing this with you because although the workforce 2000 presents difficult, frightening problems, I know that young people, older people, minorities, single mothers, and others in the "new labor force" are not a worthless population. I want to assure you through my experience, these individuals are not flawed, they care about work and their futures. They want to be part of the American mainstream. I cannot emphasize these points enough.

Programs that provide people with the opportunity to secure employment have a tremendous effect. First, it re-directs their motivation in a positive manner. Second, it gives them the chance to obtain the things they want out of life. Third, the self respect, identification, and positive feedback associated with a job in our society, can help people overcome the other problems that face them. The dignity resulting from employment can help fight the war on drugs, keep people out of criminal

activity, and break the cycle of poverty. Fourth, job training helps our nation's economy by ensuring that we have trained, literate, work ready, ambitious employees and consumers for the future.

There are many effective programs operating today. The federal, state and local governments are doing their part by allocating resources to job training and education through the Job Training Partnership Act, vocational education, JOBS under the Family Support Act, and programs for education of the disadvantaged (such as Chapter I and Head Start). These programs work effectively to address the job training needs defined by local labor markets.

In conjunction with the public programs, the business community is also participating and becoming involved in the issues. For example, 70001 began in partnership with a business. 20 years ago, in Wilmington, Delaware, local executives became distressed to see the extraordinarily high number of young people not at school, but merely standing around on street corners, directionless and idle. They decided there must be something they could do. With a small investment, they rented space, hired staff and began a program to recruit, educate, and re-direct the lives of high school dropouts who lacked the initiative to meet the challenges of the workplace. Today, 70001 operates 128 programs for in- and out-of-school youth who are at risk of not succeeding. 70001 continues to work with businesses in communities where their local programs are helping develop entry-level workers. They operate by effectively combining public and

27-288 O - 90 - 7

private funds to provide the most comprehensive programs possible. This is just one of the hundreds of examples of how business involvement can positively effect a program. Ten years ago, business people did not want to speak with us about at-risk youth. Now they are not only willing to listen but they will devote resources and staff time to the program.

We are witnessing the marriage of economics and altruism. At one time the two were rarely uttered in the same sentence. They seemed like opposite concepts because people thought the only "pay-off" of helping others was feeling warm inside. Recent cost-benefits analysis show that every dollar spent on education and training results in greater savings on unemployment checks, welfare, the justice system, and homelessness. It is critical that public and private organizations that effectively work with the workforce of tomorrow (young people, older Americans, limited-English proficient individuals, minorities, single mothers) form partnerships with businesses that are willing to assist in their efforts. A partnership can be designed in any number of ways. There can be mentoring relationships, internships, financial support for the program, on-the-job training positions, and any other innovative arrangement. All result in improved programs, qualified employees, and a more pleasant community environment. Federal, state and local governments must continue to support and encourage these

partnerships to ensure success. There is no denying that the return on the investment is worthy, and everyone profits.

Job skills, full employment and prosperity are central to overcoming most of our nation's difficulties. I want to be clear that the answer is not throwing money at all of society's problems, hoping for an easy solution. We cannot continue to take funds from one problem that seems less crucial today and use it to address another that seems more critical. Resources must be combined in a planned manner to target the root of the problem. Only then will solutions be effective in the long run and will our efforts truly have an impact.

It is encouraging that my colleagues and I are here today discussing job skills. By your attention to this issue, I realize you already appreciate all the implications of the labor shortage and skills gap. Through my testimony, I hope I reinforced the urgency of the issue and the fact that there currently are methods with which to address it. I hope you will encourage your colleagues in the House and Senate to recognize the importance of job skills training and continue to rally support around this issue.

Again, thank you for providing the opportunity to offer testimony this morning. I will be happy to answer any questions you have.

EXECUTIVE SUMMARY

The following report is based on an exploratory study of the technical training divisions of three manufacturing firms, and one company that produces and sells training services. Based on the initial hypothesis that new technologies and market conditions are reshaping the skills workers need, and the workers employers want, the report explores this hypothesis and examines how training professionals are responding to new problems and opportunities they consequently face. The following tables presents basic data and information on the firms examined here.

Firms in Study *

Firm	Product	Revenues	Employees	Technical Training Staff
Engine, Inc	Industrial Engines	$570	27,000	70
Control, Inc.	Control Systems	$660	10,000	25
Elevator, Inc.	Elevators and Repair	1,9000	43,000	250
Training, Inc.	Training Programs	70	1000	50

* The numbers here are estimates of revenues and employees for the flagship operations of the first three companies, based on both public financial reports and estimates provided by company personnel. The training staff numbers include technical trainers only and exclude personnel involved in management and supervisory training. Estimates for Training, Inc. are for the company as a whole.

Table II

Training Division Activities

Firm	Activities
Engine, Inc.	Runs vocational school for its apprentices, trains entry level operators on basic skills, develops courses for manufacturing engineers, trains parts-planners (who create flow charts for the movement of parts through a particular production sequence), creates videodiscs with the help of outside vendors.
Control, Inc.	Trains operators on basic skills, both in machining and assembling circuits, develops and conducts courses for its engineers on new control systems.
Elevator, Inc.	Participates in industry-union consortium, produces technical training materials to update technicians and installers, manages a system of headquarters staff, regional trainers and training volunteers who come from the line side of the house.
Training, Inc.	Sells problem solving training course for supervisors and operators in manufacturing settings. Also conducts special training audits and provides consulting on training services. Is currently developing new products, e.g. a training course on internal innovation.

The report is organized into seven sections. The first section examines the contextual forces that are reshaping the demand for training, the second examines how these contextual changes specifically reshape skill structures, the third shows how workers' changing characteristics are changing their skills, attitudes and expectations, the fourth assesses how trainers are responding to these different changes, the fifth highlights the limits of training as a instrument of organizational change and skill formation, the sixth summarries the key findings of the study and the seventh assesses the policy implications of these findings.

Fourteen Hypotheses

The following fourteen hypotheses present the key conclusions of the study. As hypotheses, they are presented to help guide further study on the links between training, the new technologies, and emerging market conditions.

1. The modernization of manufacturing sets the stage for the transformation of training. Managers modernize factories to meet global competition by upgrading quality, increasing the variety of goods they produce, and becoming more responsive to changing customer demands.

2. To modernize, managers undertake two critical steps. They invest in automated systems and machines and they rationalize the flow of materials, so that the the rhythms of continuous and sustained flow of materials and parts begins to replace the job shop character of production. In industries that work with metals and solids, this entails a major reorganization of the work process. At Engine, Inc. this means replacing a functional layout based on machine types with a product layout based on the similarities between parts. At the same time the machines themselves become more multifunctional as automation and the microprocessor enable a single machine to perform many functions.

3. Offices and service settings face similar challenges and pressures. For example, facing the challenge of competition and changing technologies the call center at Elevator, Inc. had to more systematically use its data base, train its receptionists to understand elevators, and is currently organizing them into regional units.

4. The need for manual and craft skills declines, though skilled mechanics are still engaged in the hand/brain directed production of new tools and parts. But workers need three new meta-skills; they must have better basic reading and numeracy skills, they must be able to think more abstractly by examining relationships, functions and contexts rather than objects and situations, and they must take a polyvalent or holistic role as they do their work.

5. The basic skills become more important as the rate of technical change makes "hand-me down" knowledge obsolete and workers must read instructions and prints to know what to do. Abstract knowledge becomes more important as workers monitor electronically governed machines, and are called upon to monitor production trends, solve problems and communicate with engineers. For example, the elevator mechanics at Elevator, Inc. can no longer simply see and touch faulty gears and wheels to assess and repair a malfunction. Instead they have to understand the more abstract logic of circuits and controls. Polyvalence and holism emerge as the new technologies integrate design and manufacturing, the drafting room and the shop floor, so that workers, managers and engineers, must have a deeper understanding of one another's roles.

6. Skill profiles and training are affected by the qualifications of the workers, the culture of careers, and the recalibration of the links between internal job ladders and educational background. Where technical colleges are linked to industry, factories can obtain the skilled workmen who have associates degrees to repair and maintain electronic and electro-mechanical machinery. They face more obstacles and must invest more resources in developing the engineering talent they need at the top and the shop floor talent they need at the bottom. Needing polyvalent engineers, that is, engineers conversant with the different disciplines and specialities that shape the manufacturing process, factory managers must develop a new training

system to retrain and upgrade their current engineering staff, while at the same time linking these engineers more completely with the designers who create new products and process. Similarly, operators working at the shop floor have weak basic reading and arithmetic skills. This can create obstacles to factory modernization since reading becomes more important as instructions and blueprints replace hand-me down knowledge, and arithmetic becomes important as operators are asked to assess trends and deviations in the quality of the output.

7. Educational qualification and continuous training may reduce the significance of seniority in shaping internal careers within a company. Thus, at Engine, Inc. an increasing proportion of the parts planners come from four year colleges rather from the shop floor, the salesmen for Elevator, Inc. come out of college rather than the field,at the Elevator, Inc. call center, an increasing number of receptionists are going to college, the maintenance technicians at Control, Inc. have two-year associate degrees, and the engineers at Control, Inc. are now taking company sponsored courses to become familiar with the new technologies of control.

8. Operators enter the shop floor with a new relationship to authority. They want to know why they must do something rather than just do what they are told, and they are less willing to work at the same job or machine for a large part of their work lives. They want a piece of the action and want to put themselves into the picture. Managers and supervisors remain ambivalent about this emerging culture

of authority. Wanting to tap worker knowledge and win their cooperation in rationalizing the shop floor they encourage participation, but fearful of the chaos that might result, they may tighten controls if workers show too much initiative. It seems that first line supervisors and foremen come to express management's ambivalence, often feeling that training restricts their ability to get the product out the door. Finally, though workers want to participate, they may lack the basic skill and the problem solving skills to make themselves effective. This suggests that training's function is not only to enable workers to solve problems but to provide workers and managers with a shared framework or language for communicating with one another about problems, so that the anxieties and discomfort associated with communicating between levels is reduced.

9. As a result of changes in technology, labor supply, and skill profiles the training function is being upgraded and is being progressively linked into business unit planning. Trainers who once lived in an organizational ghetto isolated both from one another, the shop floor and upper management, now have increasingly public and valued roles and are expected to contribute to the profitability and integrity of the manufacturing operation. As training's role is more visibly linked to the business units, trainers themselves need no longer come up from the shop floor but can come from a range of professions and disciplines. While expanding the opportunities open to non-technical professionals and diversifying the skill base in training divisions, this development may also block the upward

mobility of trainers who, though lacking education, have "shop smarts."

10. As technologies change rapidly, the training department must develop methods for delivering "just in time training" that balances the needs to help workers master a new technology without training them too far in advance so that their skills decay because they have no new machines to work with.

11. To accomplish its more valued mission, trainers are increasingly using interactive videodisc technology. Such programs mix video segments with computer screens and questions, are structured to provide immediate feedback to students, and enable the student to return to old segments or move forward to new ones at will. Interactive videoprovides good returns on investment when trainees are dispersed and are large in number. Moreover, since each student can go at his or her own pace, average training time per student can fall by as much as fifty percent. In the longer run, training with interactive video will be delivered through video stations adjacent to the shop floor. Supervisors, often reluctant to release groups of workers for training, will find it easier to release one worker at a time at frequent intervals to master a particular skill or review a particular product.

12. There are nonetheless limits to training's ability to improve worker competence and skills. As machine systems are automated, workers need to deepen and accelerate their learnings from experience, since they most frequently take action in novel or unexpected situations. Work designs that help integrate working and learning, such as the application of Statistical Process Control, Just in Time production systems, group technologies, and the development of semi-autonomous teams, can help workers focus their attention on anomalies, and understand the production process as a whole. Moreover, such new work designs also reorganize the working relationships between managers, supervisors, operators and engineers. To implement such designs managers must change plant culture.

13. Underemphasizing learning, and confusing learning with training, managers often neglect the links between work designs and learning while sometimes hoping that training can resolve work design and relationship problems on the shop floor. They alternatively undervalue or overvalue training.

14. Working as staff personnel with a limited budget, training professionals cannot single-handedly link work designs to learning. Instead, they must work closely with those managers interested in transforming plant process and culture.

JFS

POLICY IMPLICATIONS

This study highlights four possible avenues for policy training related to education and economy.

1. The problem of adult illiteracy and people's deficits in basic skills may emerge as an obstacle to economic development. Ironically, the development and application of high technology systems stresses the workforce's underdeveloped basic skills not its presumed inability to work at high-tech professions. Reading, interpreting, and problem solving, become extremely important when informal methods of training and work organization give way to more formal ones.

2. The shift to abstract and conceptual skills rather than manual and situational skills, might lead educators to expand their concept of basic education. This study suggests that methods of thinking and relating may become more important than the skilled performance of a particular task since the latter changes with technology. Four methods may emerge as key:

   a. Problem solving using the classical methods of scientific reasoning, that is, discovery by induction based on hypothesis testing and the use of disconfirming evidence.

   b. statistical reasoning to assess the meaning of trends variances, probabilities and frequencies

c. systems thinking to assess the links between a problem and its context, and a role and its setting

d. the old but continued importance of thinking in shapes and geometries, and visualizing three dimensions.

3. The importance of two-year colleges, the obsolescence of particular manual skills, the relatively poor preparation of students who go to vocational schools, indeed, the absence as Hoachlander points out, of any critical difference in the courses taken by vocational and non-vocational students, suggest that at least in the U.S. the vocational high schools cannot be expected to play a critical role in reshaping technical education. We seem to be developing instead a deeper adult education system both outside and within companies in which adults, faced with career opportunities or blocks, actively and freely choose to learn skills. This suggests that high school should emphasize a general education. But to prepare the new operators they should focus increasingly on basic skills and core methods rather than on particular skills or simply the casual smattering of course work that often shapes curriculums today.

4. Government procurement policy can shape training activities. While currently government agents audit training departments, procuring avenues in the future might consider rewarding contractors who use job designs as learning and training mechanisms. SPC not only improves quality, it also enables operators to learn when and why manufacturing process fails. Other "learning at work" designs, such as QC circles, team systems and "pay for knowledge" compensation schemes might be rewarded.

5. In developing a policy of training and retraining we should no longer use the image of the "displaced worker" as the framework for policy thinking. Increasingly, the employed, as well as the unemployed, must be retrained, and policy should focus not only on those left out and left behind but also on the mainstream companies and educational institutions that will shape the post-industrial adult education systems. In particular, we need to evaluate the links between the high schools, the community colleges, the technical colleges, the vocational schools, the training departments, and the training companies to see if their relationships best serve our retraining needs. What planning and coordination mechanisms should be developed to more effectively integrate their different efforts? How can we allow these institutions to operate within a spirit of entrepreneurship while at the same time assuring that their separate efforts add up to a coherent set of national initiatives?

Senator GORE. I'm going to recognize myself for 5 minutes and then Congressman Scheuer.

You mentioned, Mr. Peagler, the drug problem in drawing an analogy to the way we approached it and the length of time it took us to be concerned about it. But let me ask you about drugs directly.

In the programs run by your organization, and the experiences that you have had in looking at this field, what percentage of the trainees have a drug problem and how do you deal with that?

Mr. PEAGLER. I'll tell you that it's my understanding and my experience, in going to our programs in about 128 sites around the country, that we have youngsters who are coming in who have had severe drug problems but they've either shaken the problem or on their way; that our programs do not in any way help a youngster through that, the drug problem. But we do have youngsters who've been through it, we've had pushers who've come close to dying and said I've got to get out of this and so on. Only peripherally are our youngsters connected to drugs—they are out of it and on their way out——

Senator GORE. All right.

Ms. Linefsky.

Ms. LINEFSKY. It has absolutely devastated, I think, New York City. And it has devastated in several different ways. In terms of some of the youth that are, let's say, in our normal out of school programs, the classic kind of JTPA, what you find with them, very few of them are actually taking drugs, because what both the staff and they will say is they could never make it into the program. But they'll sell and they'll sell and they'll sell it and they'll say I'm only going to sell it for so long so I can get my mother a new apartment.

In our welfare programs it has devastated the people, not so much for the women who are in there but rather their partners, issues of spouse abuse, kinds of things that are going on in apartments.

In our schools we see the same things as we do in terms of our out-of-school youth. A kid whose really hung out on drugs heavily is never going to make it in on a daily basis into school. But they're going to be selling, they're going to be dabbling.

And if you—don't ever underestimate. I always think about watching—when people are in different parts of the country, the devastating effect. I've been in this kind of business, whatever you want to call it, for about 25 years. And I've been with the organization that I'm with now for about 8 years. And what I do is bring staff together and ask them the difference between what they see today versus what they saw 3 years ago. There's not a staffer, not a program that does not say that we live in a different world, a totally different world. When you want to talk about crisis, you're talking about a capital "C."

Senator GORE. Mr. Knight.

Mr. KNIGHT. I think what you'd find, Senator, is that generally in our programs, those who are serious abusers, serious in that sense, are referred somewhere and they run into the very problems of limited resources for drug abuse treatment.

I was talking to a PIC chairperson recently though, who indicated one dimension of the problem—and I'm not sure where recreational drug use ends and serious abuse begins—but he was telling me these are people who could complete training programs but, as an increasing number of employers use some kind of drug screening for new hires, they have to talk to clients in JTPA programs about which employers those are and find out whether they still wish to go in. They aren't sure who is and who isn't affected by drugs.

But what they were finding at one point was that over 50 percent of their referrals at this particular place to these employers were not passing drug screens. And I suspect that the problem may even be worse than that.

Ms. LINEFSKY. Senator Gore, when Mr. Kolberg talked about New York Telephone, there's another aspect: New York Telephone has a rather rigid drug screening program and their numbers were massively high, I mean way over 50 percent. Forget about for the moment whether someone could read or write but absolutely could not pass the drug test.

Mr. KNIGHT. One might also add that these employers that are using drug screens are frequently the best-paying jobs in a given community, so that intensifies the nature of the problem.

Senator GORE. Ms. Linefsky, how easy is it for young people to obtain information today about the kinds of jobs they can expect to be looking for when they graduate from high school?

Ms. LINEFSKY. Almost none. And it's almost none in two different ways: not only the youth or, that we normally talk about, the disadvantaged, the disenfranchised, but I have two children of my own and presumably that they come from a background where they should know about this sort of thing. There is almost nothing going on in major urban areas that talk about what I mentioned before about career exploration.

The classic thing of someone who walks in and talks about: Let me tell you about my job. It doesn't even happen any more. So you have young people being forced to make decisions sometimes along a vocational program, for example, rather than straight academic, they have no idea what they're choosing. They have no idea whether that's the right road to take or whether, in the end, they're going to get a job.

Senator GORE. So if it's not realistic for them to become a rock star or a professional football player, then the rest of it is sort of up in the air?

Ms. LINEFSKY. It is almost by chance. If you were to do a study about how kids wind up in second chance programs across the country, I would assume that 90 percent of them make it having nothing to do with what is being trained, it's because they heard you're treated well, someone cares about you, a friend got a job at the end of it; it's much more that. It has nothing to do with a decided goal.

The other thing is that most young people are never given the experience to understand the difference between working for legal money—to get work experience so you get legal money in your pocket, having nothing to do with having a career. The fact that people change their jobs many, many times.

And if I were to ask you what your first job was, I'm assuming that it had nothing—maybe—nothing to do with what you do now. Young people have no sense of that.

Senator GORE. Right.

Well, my time has expired. I have a number of other questions for the record, as I'm sure that other members of the committee do.

Let me now call on Congressman Scheuer.

Representative SCHEUER. Well, thank you, Senator Gore. I've enjoyed this panel very much and I've learned a great deal from it.

One of the things I've learned, Mr. Peagler, is that your testimony was not disjointed, as you said. You said it all. You said two things that are important for us to understand: that there are a lot of good things going on out there now that are working, and this is what Ms. Linefsky said, too.

And, second, you said it's a question of will. It's a question of determination. It's a question of whether we're going to put the resources there to bring these programs to life that, in effect, we're now carrying out on sort of a research and demonstration basis. They're little laboratories. And they work.

The problem is that we treat programs that work the same way as we treat programs that fail. We don't know how to take the failures and cut out with a surgeon's scalpel those elements that cause failure and then give them more resources. And we don't know how to say when a program works, like Mr. Peagler's and Ms. Linefsky's, by God, we have something good here, let's go for it and let's enlarge it and extend it.

It's painful to me, we know so much about what does work: the National Alliance of Business is conducting excellent programs, right in New York City, that we all know about. They're for, all of these businessmen, full funding for Head Start.

It depresses me that we're not doing these things. But I suppose in the fullness of time we will, but we're going to hurt our society and we're going to cripple our own youth to the extent that we don't get at it now and put the resources to work in programs that demonstrably work.

And that doesn't mean that we can't know more; of course we can know more. We should keep on studying, we should continue oversight, we should continue accountability. But let's go with what we know works and put the resources where the successful programs are in place.

I thank this panel very much. It was a very fine panel and I look forward to working with you all in the future.

Senator GORE. Well I, too, want to thank the panel. We will have further questions in writing.

I want to thank you, Congressman Scheuer, for your fine leadership in this area. I always enjoy working with you.

And I appreciate the contributions all witnesses today have made. We're going to continue the committee's interest and involvement in this subject. It is, or course, vital that we find a formula for success.

As has been noted, we know what to do for the most part. We have to find ways to convince the administration to offer leadership, ways to convince our colleagues in the Congress to demonstrate a readiness to follow that leadership and work with the ad-

ministration when and if that leadership is forthcoming to change our current approach. We're certainly encouraged by the initiatives that are beginning to take place in the private sector.

But again, with the committee's thanks, we will adjourn this hearing. Thank you.

[Whereupon, at 12:20 p.m., the committee adjourned, subject to the call of the Chair.]

[The following written questions and answers were subsequently supplied for the record:]

RESPONSES OF WILLIAM H. KOLBERG
TO WRITTEN QUESTIONS

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Security Pacific Corporation
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NFIB
Arthur J. Smith
Masonite Corporation

December 11, 1989

Honorable Albert Gore, Jr.
Joint Economic Committee
Congress of the United States
Washington, D.C. 20510

Dear Senator Gore:

Thank you for your letter of November 9, asking for responses to written follow up questions from the Joint Economic Committee's hearing on "Crisis in the Workplace: The Mismatch of Jobs and Skills."

I am happy to enclose my written responses to the questions as a separate attachment. You raise many of the complex issues that challenge us daily as we search for effective solutions to the problems of workforce quality.

I appreciated the opportunity to testify again before you and the Committee. I look for ward to working closely with you on these issues.

Sincerely

W. H. Kolberg

William H. Kolberg

cc: William R. Buechner
Quinn B. Middleton

1201 New York Avenue, NW, Washington, DC 20005 202 289 2888 (FAX) 202 289 1303

RESPONSES OF
WILLIAM H. KOLBERG, PRESIDENT, NATIONAL ALLIANCE OF BUSINESS
TO WRITTEN QUESTIONS FROM SENATOR ALBERT GORE
FOR THE RECORD OF THE JOINT ECONOMIC COMMITTEE HEARING OF TUESDAY, OCTOBER 31, 1989.

Questions: "How would you respond to Dr. Klein's concern that job training programs in the past have trained people for dead-end jobs rather than open-end jobs with a ladder of promotion and success? Is this an accurate criticism of job training programs? Do participants in current job training programs generally obtain jobs that have little opportunity for promotion?"

Responses: Past programs under the Comprehensive Employment and Training Act (CETA) were often criticized in evaluations for being designed in the public sector by public institutions without adequate information about the real labor market needs of employers in the community or with knowledge of available jobs, let alone what levels of skills employers would require of entry level employees. That was reflected in training for inappropriate or unavailable jobs in the labor market. There was also a large component of public service employment which was temporary and not intended to include training nor to be directed to a career ladder. We did find, however, that even in public service employment, there were benefits accrued for those who had not worked before by providing the credential of having worked in a public institution which the individual could use in seeking other employment.

In 1982 with enactment of the Job Training Partnership Act (JTPA), that criticism was remedied in part by establishing formal structures, having private sector leadership, to oversee the skill content, design, and operation of local job training programs. The involvement of employers in partnership with elected officials also added credibility for program outcomes among the business community because of the structured involvement of business peers.

From this experience, we have learned a great deal about what works and what is still needed to improve programs under JTPA. Amendments in 1986, and the pending legislation currently before Congress make substantial improvements toward enriching the quality of services that must be provided based on assessments of individual needs and directing programs toward providing a "continuum" of services that prepare disadvantaged individuals for entry level employment. The most important changes being made in the JTPA system are to design services with greater attention to basic skills, literacy, and remedial education components so that individuals are given access to a broader range of educational services to prepare them for the labor market. Since the program is serving larger numbers of "harder-to-serve" individuals, the components of support services needed to deal with complex social problems are increasingly coordinated with training. The programs are designed largely according to statutory intent which overcome substantial barriers to employment among the eligible clientle to that they can enter the labor market with employers who have jobs with career potential. They are not intended to provide the professional or technical competencies of individuals with higher education or long work histories.

Professor Klein's assessment is perhaps better addressed by looking at the nature of the workplace that clients of public job training programs are being prepared to enter. Some general observations are needed to put expectations of the training programs in perspective. Most of the technical job skills that determine career potential are taught by the employer on the job. The public programs have primarily addressed the basic

skills, pre-employment competencies, and basic occupational skills. The issue of career potential is more closely related to job placement, not to technical skills training. The placement should be an important consideration for public program administrators in terms of carefully identifying employers having the potential for additional skill training. The technical training an individual receives on the job is what qualifies them for higher paying jobs, even if those jobs are not with the same company.

We have learned that the nature of the job is even less important than assessing the potential of that job to provide marketable experience and training after employment. A commonly used example of criticism of public programs is that many individuals are placed in fast food jobs. Even in fast food, where there have been excellent examples of career advancement for some of the harder to serve client groups like welfare mothers, the measure of success was the company's attitude toward providing training and opportunity, not in the nature of the job or the public training program which prepared the individual for employment.

We recognize past program problems which, in the first few years of JTPA, emphasized job placements as the primary measure of success. That attitude has been modified somewhat with greater attention being paid to the types of job placements and the quality of services being provided to prepare individuals for jobs. The problem is further being addressed by the system moving to performance measures accounting for longer term placement and earnings increases. Those measures provide proper incentives to the system to ensure that people are capable of staying employed and advancing their earnings.

Question: "How do you identify the skills needed for promotion and success and how do you teach them?"

Response: This question was the basis of extensive research on basic skills recently completed by the American Society for Training and Development under grants from the U.S. Department of Labor. Their findings demonstrate a range of skills not easily taught, but which employers find valuable. Those skills include such things as leadership, initiative, team work, attitudes, and other personal skills that are harder to teach. No one has developed the perfect model for teaching them. There are various models developed by corporations, and some from adult literacy programs which have been oriented toward workplace preparation, but most are based on the unique skills of the teachers or the individual commitment of companies and few have been standardized into teaching methods or curricula.

Question: "How do you measure the success or failure of your programs and, if successful, what means do you suggest for disseminating successful program models?"

Response: There has been a recognizable progression in public policy for measuring success in job training programs. It has moved from measuring "process" or compliance to measuring program impact and quality. JTPA began to move from the compliance measures of CETA to measures of program outcome. Now the move is to emphasize and measure the long term impact of participation in the program. That will force greater attention to program design and to the quality of services provided in areas such as basic skills. The Manpower Demonstration Research Corporation (MDRC) has undertaken a long term evaluation project under the U.S. Department of Labor to measure the impact of programs on individuals who go through JTPA compared to similarly eligible individuals who do not participate in the programs.

There are other national organizations, like the Alliance, which work to provide technical assistance, share program models, and disseminate information on best practice within the system. The information shared at national, regional, and state conferences of these organizations, and the state organizations of JTPA professionals, is another source for providing successful program models to other areas.

It is clear that the need for technical assistance and information sharing is greater than the resources currently available. This problem is recognized by the Department of Labor. The Administration proposed a greater investment in technical assistance in their recent legislative package amending JTPA, and those provisions were incorporated into the Labor and Human Resources Committee bill currently pending in the Senate. If implemented, this initiative should help alleviate past problems.

Question: "With many American corporations under pressure to cut costs and cut payrolls, both from foreign competition and the threat of takeovers, how can firms be induced to invest in workers they may have to fire later just in order to survive? What kind of business environment would encourage businesses to invest more in their workers?"

Response: As I mentioned in my testimony, American businesses are operating in a period of exceptional change and challenge, resulting from new technology, demographic shifts, increasing international competition, and a host of rising domestic social problems. These factors have changed the environment in which business management and investment decisions are made. Much of the change in American business is being driven by competition and reactions to labor shortages. Employers have had to focus more creative energy on recruitment of employees. It is true that many employers are faced with workforce reductions to reorganized in the face of competition. But a significant trend is occurring nationwide, even in companies facing layoffs. That trend is to increase investments in workers that are remaining on the job. Companies clearly have to compete based on quality now. They recognize that you cannot produce a quality product without quality people. That requires investments in human talent.

The Motorola company, a recent recipient of the Baldridge Award for quality, is a prime example of where American corporations need to go. They undertook an assessment of employee skills and were able to not only identify literacy problems in the workforce, but also technical skill deficits that needed to be addressed. Upgrading their workforce has been a major priority to the point to where they are now second to none in their market.

Few corporations, except for a few of the larger ones and mid-size companies like Motorola, are able to invest as much as is necessary to upgrade their entire workforce. It is for this reason that we are convinced that the federal and state governments need to examine policy incentives that will make the difference in whether or not marginal corporations invest in worker quality to the degree necessary.

Question: "Would this (the French approach) be a viable approach for the U.S. to take to overcome its training problems?"

Response: I used the French tax policy as an example of the fact that other governments among our major international competitors have already moved to provide innovative policies to address their workforce competitiveness problems. The Alliance is not expert

enough on the French model to suggest its appropriateness one way or the other to the American economy. However, the American Society for Training and Development has summarized some of the pros and cons in their publications. One key observation they make is that the French system does not specify who is trained or what kind of training should be covered. As a result, the tax incentive does not always translate into training or benefits for the line workers, but is used up instead on upper level management.

Question: "A tax incentive for training has also been suggested. What are the pros and cons of this approach, aside from its potential affect on the federal deficit?"

Response: Several observations on current law are helpful starting points in beginning to think about a niche for tax "credits" as an incentive (again with the caveat that this is not intended to be an expert analysis). Most expenditures for human development and training are immediately expensed under current law, rather than being amortized like physical capital investments over a period of years. Wages of trainees, wages of trainers, educational fringe benefits, and short-lived training materials are all immediately deductible currently from corporate income. (A special case exists in which training costs can be amortized. If the training can be considered as a component of firm "start up costs," the training can be amortized. Capital equipment purchased for training would be excluded from the definition of eligible training expenditures, because it is amortized under current law).

These deductible training costs are treated much like deductible research and development costs under the corporate tax system. (The tax code also allows a tax credit for increasing research and development expenditures. If more research and development is undertaken in a current tax year, relative to an average of previous research and development, then one-fifth (20%) of the increase can be deducted directly from the taxpayer's tax liability. No such explicit tax credit exists for education and training). Training costs are already subsidized by the tax code as allowable deductions and business expenditures.

The most pertinent distinction in this discussion might be a proposed change from the current treatment of training expenditures as a tax deduction (deducted from amounts otherwise considered taxable income) to their treatment as a tax credit (subtracted directly from tax amount due). Current law provides the tax benefit of having training costs fully deductible. The tax credit would be more of an incentive to increase training investments, because the eligible amounts of expenditures would be credited directly against the employer's federal corporate tax liability.

Another distinction that currently exists is between personal income tax treatment for employee expenditures or self-employed individuals (primarily small businesses), and the corporate tax code treatment of employer expenditures for education and training. If an individual wants to self-invest in education to generate a higher stream of future income, tuition and other out-of-pocket costs are not deductible as costs of generating income, unless clearly linked to the taxpayer's current occupation.

One option reviewed by the Commission's researchers is to combine employer expenditures on education and training with research and development into one category of expenditure. This would treat investment in research and development and human skill development identically under the corporate tax code. Firms could also have the option of carrying the costs of investment in human capital forward to offset gains in subsequent periods similar to the operation of the research and development tax credit.

In the case of this proposal, Congress would recognize explicitly that the tax credit would not achieve neutrality between education or training compared to other forms of investment in the tax code. The tax credit would deviate from this neutral ideal because of the socially desirable results. As the Commission's research concluded, due to the complicated incentives introduced by the tax credit, further analysis of the incentives are probably needed.

If a new training tax credit is modeled after the current research and development tax credit, but not directly folded into it so that training and development are viewed as a single investment credit, a more modest option might be to add a second tax credit tier for training that would apply to amounts above what is currently deductible, which could then provide additional incentive to invest more funds above a level determined against a base period of prior years' expenditures.

One qualification of the tax credit might be that it apply only to expenditures that cover portable skills to which it can be assumed there will be broader economic benefits accrued to society and between firms. Specific training for a particular employer's requirements, specific only to that employer's production and that job, would continue to be borne by the employer out of economic necessity (unless, perhaps, the amount exceeds the average annual expenditure over a previous period of years as above). Also, education or training taken purely for enjoyment but which never generates a stream of taxable income would not be treated as human capital investment. However, drawing such a distinction is administratively difficult.

Another option discussed in the Commission's research would be to extend the income exclusion for employer-paid education (under section 127 of the current code, commonly called employer tuition assistance programs) in a manner that would reduce the current disparity between investment in skills useful in the current job and a non-current job. In other words, it would not distinguish between job-related and non-job-related benefits. If firms permitted non-job-related educational pursuits, so would the tax authorities, because of the overall social benefit.

Finally, there a need to better define what types of expenses could be covered by a tax credit so that it related to those elements of workforce training most appropriate to a public or shared responsibility in the private sector. The most prominent example would be incentives for private employers to provide workplace literacy training, or basic remedial education for employees, for employers to work in that area of training in which workers failed (e.g., public education systems), or whose basic educational skills are now out-paced by new competitive demands or technology.

This question is one that is only beginning to be explored by major national business organizations in response to employer needs and will need much more thorough discussion and development before it can be answered properly. The Alliance plans to participate actively in those discussions in the coming months and will work closely with the Committee as recommendations can be developed.

70001 Training & Employment Institute

RESPONSES OF OWEN PEAGLER
TO WRITTEN QUESTIONS

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Mr. Lee Arnold
The Honorable William Fauntroy
Mr. Paul G. Kirk

January 30, 1990

Senator Albert Gore
United States Senate
Washington, DC 20510-4202

Dear Senator Gore:

I appreciated the opportunity to testify before the Joint Economic Committee hearing on "Crisis in the Workplace: the Mismatch of Jobs and Skills." I believe the hearing properly addressed the problem by using the word "crisis." Today's economic and social condition in the United States is at a critical point. The hearing helped to bring the issues to the forefront of the national agenda and will hopefully assist in your efforts and those of your colleagues to bring about improved programming and use of public funds.

70001 Training & Employment Insititute serves thousands of young people across the nation who are having difficulties succeeding in school and in the workforce. Our experience with those young people is both discouraging and encouraging. We are placing thousands of people back on the track to successful workforce entry by teaching the necessary motivation, attitudes and skills, and the youth participants are responding and succeeding. On the other hand, we serve a tiny fraction of those who need our help. In fact, statistics show that programs funded under the Job Training Partnership Act serve only 5% of the eligible population. This figure is frightening when you consider that our economy needs the JTPA eligibles who are unserved as much as those that are served.

More money is needed and could help improve and expand programs, but increasing the funding levels alone is not the answer. Simply put, money must be directed to areas where results are apparent and funding added where results are indicated. We do need to undertake further study of the problems under discussion, but we know enough already to redirect our efforts, and funding, for more effective results, while we continue to search for more effective answers and responses.

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Enclosed are my responses to the questions that you posed after the hearing. I sincerely hope that the ideas that I have expressed are useful to you and your colleagues and are not too late in coming. If I can be of further assistance, please feel free to contact me.

Sincerely,

Owen Peagler

Mr. Owen Peagler
Chairman, Board of Directors
70001 Training & Employment Institute

Encl.

QUESTIONS SUBMITTED BY SENATOR GORE

Joint Economics Committee
Answers by: 70001 Training & Employment Institute

1. On April 12, 1989, Professor Lawrence Klein of the University of Pennsylvania and winner of the 1980 Nobel Prize in Economics testified before the JEC on a broad range of topics, including job skills and education. During the hearing, Dr. Klein said:

> We need more youth job training. We need more on-the-job training. I think the programs that we've had in the past didn't really made a big dent in that problem because I think they didn't train people for open-end jobs with a ladder of promotion and success. They tended to be mainly dead-end positions.

How do you respond to Dr. Klein's concern that job training programs in the past have trained people for dead-end jobs rather than open-end jobs with a ladder of promotion and success? Is this an accurate criticism of job training programs? Do participants in current job training programs generally obtain jobs that have little opportunity for promotion?

Training programs sometimes place individuals in jobs without a career ladder, but saying that the jobs are "dead-end" is really too pessimistic, especially when we talk about youth. Although a particular job does not have a clear career ladder, the work-readiness skills that are learned in a first job are transferable; an employee learns critical work habits and values that will improve his or her chances for success on any job.

We also must remember that today the labor market is different than in the past. People need a higher level of skills to succeed. Employers ask for entry level workers who can read, write, comprehend, solve problems, make decisions, and follow instruction. Any training program that helps people acquire these skills will help them succeed and progress throughout the labor market.

Any positive work experience will be helpful when looking for another job. A person's first job is not necessarily the only job he or she will ever have, so if there is not potential for promotion, he or she can take the acquired skills and move to a job with greater growth potential. 70001 feels that helping our participants realize the value of any work experience is crucial to their success.

--How do you identify the skills needed for promotion and success and how do you teach them?

Identifying and teaching the skills necessary for promotion and success is not an easy task. Different jobs have different promotion criteria. It may involve typing a certain number of words per minute or another measure of excellent job performance. Promotion can also be based on duration with a company. There are rarely set "benchmarks" for promotions; it is sometimes a matter of chance, timing, or the will of a supervisor, thus teaching the skills that ensure a promotion is nearly impossible.

On the other hand, most employers would say that promotions are partially determined by how hard a person works, by his or her attitude toward supervisors, co-workers and work in general, by his or her attendance and promptness in addition to job performance. 70001 believes that teaching young people pre-employment/work maturity skills and basic education coupled with motivation and confidence provides the keys to success. Feeling important, that you can do a good job, that your efforts are valuable and appreciated leads to the perseverance that breeds achievement and often turns what some might say is a "dead-end" job into a chance of a lifetime.

2. How do you measure the success or failure of your programs and, if successful, what means do you suggest for disseminating successful program models?

A program's success can be measured quantitatively by comparing the program's actual results with the program's intentions. The Job Training Partnership Act system uses performance standards to determine the success of the programs within their delivery system. These measures include outcomes such as the number of participants that are placed on a job, that go back to school, that reach a certain competency level, that are no longer receiving welfare checks, and others.

These standards provide evaluative information, but you must make sure the measures you are employing actually reflect what you intend to. Consider the following:

Program #1 serves high school graduates. It places an average of 90% of their participants into entry level jobs per year. Program #2 works with school dropouts who read below the fifth

grade level. Annually, program #2 places 15% of their participants on jobs. The rest increase their educational level by two grades. Which program is more successful?

The two are not comparable -- one is not necessarily more beneficial than the other. Simply put, any measure of "program success" must reflect the population being served and the goal of the intervention. We must also consider the fact that there are many positive results that are more difficult to measure quantitatively, such as improving one's self esteem or overcoming a drug addiction. These often are the most important steps to securing a job, and may be the best indication of a program's success, however, they are not always considered during the evaluation process.

Once a program is evaluated as "successful", it should be listed in a clearinghouse that provides information and evaluation of different program models. This way, individuals who are responsible for designing the programs for their area would be aware of what is readily available and would not attempt to re-invent the wheel. Research and development is also important as we continue to improve on our successes.

Employment and training personnel rely on professional development opportunities to learn about successful program models. Through professional associations and conferences we have mechanisms to share ideas and progress. Continual support for the professional development of employment and training personnel is probably the most effective means through which to disseminate and the replicate successful programs models.

3. **With many American corporations under pressure to cut costs and cut payrolls, both from foreign competition and the threat of takeovers, how can firms be induced to invest in workers they may have to fire later just in order to survive? What kind of business environment would encourage businesses to invest more in their workers?**

Employers must realize that "human capital" is as important and necessary as "machine capitol." Over half of the improvements in America's productive capacity between 1929 and 1982 were attributable to learning on the job. This is in contrast to a 20% contribution made by investments in machine capital. (E.F. Denison, Trends in American Economic Growth 1929-1982. p.3. DC: Brookings Institute, 1982).

Human capital will never be obsolete, especially not with the labor shortage that is facing us. Training is an effective method to improve employee productivity along with a company's competitive edge and profits. This fact alone should be justification to create a business environment that encourages training -- both basic skills and job specific skills training.

Business must develop a strategic plan for their growth in consultation with individuals who are responsible for a community's development. Once they determine how their business might grow they will see the value of investing resources in training their employees. They will be able to create and illustrate a definite career plan for employees and business plan for themselves. Money spent on training will be filtered back into the business.

Not only will they see direct benefits -- productivity and profits -- training improves the community in which employers live, work and raise their families. Helping to solidify the work force will benefit the entire nation in the long run. The initial investment of time and resources will pay off.

4. **Some countries have been more serious than the U.S. in training and retraining the work force. An example is France, which requires that "firms must either spend a specified minimum percentage of their payroll to training their employees or pay that same percentage into a government administered training fund." Would this be a viable approach for the U.S. to take to overcome its training problems?**

Although France's model sounds like a viable and logical solution, there are some issues and problems that must be addressed before we decide to implement it in the United States. First, we would need agree upona solid definition of "training". Also, we would need to determine whether or not the training should occur at the work place or elsewhere, during business hours or after work, be job specific or general in content, include basic skills enhancement or just technical training. In addition, we would have to consider the administration, monitoring, sanctions for non-compliance, and issues such as whether or not to pay employees for their participation, to name but a few.

We need to think about the different effect on small and large companies of mandating the expenditure of a percentage of the payroll on training. Many large companies have training built into their corporate budget, and often have elaborate educational/training facilities on the work site. They can afford to put that money aside and invest in their employees. They also recognize the long-term benefits of the initial commitment of resources. Small businesses are not so fortunate. They don't have many employees, so it would not be feasible to have on-site training programs or a "private" training contract designed to fit their needs. They also may not have the resources up-front to invest in the training costs, and sending their employees to training at any given time will reduce their profits which they may need just for day to day operation.

Small companies would be most likely to contribute to the government administered training program, referred to in France's example. If there is a training tax on businesses for a government program, the government should be sure that those who contribute benefit. This leads to the discussion of what would be done with the governmentally-administered funds. Would they be contributed to the JTPA system or another training system? Would businesses be able to see a benefit of the government system, or would they see it as just another tax? Would the governmentally-administered training funds provide job specific training, general employment skill, or basic remediation?

Businesses do not like government intervention; they despise the idea of more taxes. Handling the issue of training with a mandatory tax or spending minimum would place training in a negative light. Businesses must see a need and a benefit in order to "buy into" the concept of training their workers. Those of us who have been working in the employment and training field know how important it is to have private industry on our side when it comes to training issues. Associating "training" with "taxes" may work against our efforts.